

PROPOSAL FOR:



# City of Fayetteville FAST

COF1516893

Real-Time Passenger Information System

June 2024



4505 Emperor Boulevard,  
Suite 120  
Durham, NC 27703  
[www.transloc.com](http://www.transloc.com)



TransLoc, Inc.  
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Kimberly Toon  
Purchasing Manager  
City of Fayetteville  
433 Hay Street  
Fayetteville, NC 28301

RE: RFP #: COF1516893 for a Real-Time Passenger Information System

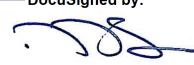
Dear Ms. Toon and esteemed selection committee members,  
TransLoc appreciates the opportunity to submit this proposal in response to the Request for Proposals by the City of Fayetteville for a Real-Time Passenger Information System. We hope to continue our partnership, working together toward your mission of improving the quality of life of Fayetteville's residents, workers, visitors, and places by providing transparency into your highly valued, safe, efficient, reliable, and innovative transportation services.

TransLoc is committed to delivering integrated solutions that support clients and their transportation systems. Our fixed-route (CAD/AVL) solution is a powerful and scalable system that supports a range of hardware integrations, tools, and reports designed to **elevate your transit operations**. As one of the largest and most established transit technology organizations in the United States, we support **over 600 fixed-route** and on-demand/microtransit clients across transit authorities, municipalities, universities, corporate campuses, hospitals, and Fortune 500 companies. Our experienced team of employees has a proven record of delivering TransLoc's full suite of services.

By partnering with TransLoc, your agency can benefit from our system's reliability, **with GPS location updates every 3-5 seconds**, ensuring accurate information for your agency and riders. Our solutions offer access to premium technology and operations partners specializing in transit operations. Our comprehensive suite of services includes Fixed-Route hardware and software, on-demand/microtransit software, a multi-modal application, automatic passenger counters, and more. We are ready to serve as a long-term partner for your future needs and are confident in the value our system can bring to your operations.

We are thrilled at the prospect of continuing our collaboration with the City of Fayetteville on this project. Enclosed are further details on our product and our competitive pricing. This proposal constitutes a firm offer for at least 90 days from the date of the proposal opening. For any clarification regarding this document, please do not hesitate to contact Nguyen Le, our Enterprise Account Executive, at [Nguyen.le@transloc.com](mailto:Nguyen.le@transloc.com). We wish the City the best of luck with this project and eagerly anticipate the opportunity to continue working together.

Sincerely,

DocuSigned by:  


05A6651923154F2...  
Chip Schuneman, General Manager, TransLoc

*This bid is subject to the negotiation of a contract, on mutually agreeable terms, following award. Such contract shall include negotiated indemnification, limitation of liability, confidentiality, data ownership, IP ownership, insurance, warranty, termination, and payment terms. This negotiated contract shall govern the contractual relationship between the parties. Furthermore, Contractor has submitted its standard Technology License and Service Agreement ("TLSA"), which is referenced herein.*

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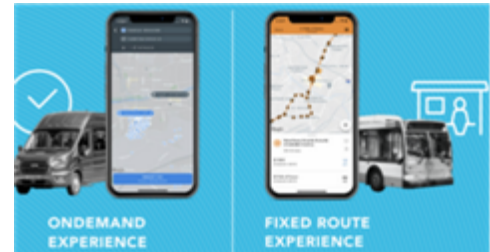
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### 3. Qualifications and Experience

Since 2004, TransLoc has supported clients with fixed-route solutions at over **600 locations** across the United States and Canada, including transit authorities, major airports, municipalities, universities, medical centers, employee shuttles, and other fleet tracking and passenger counting operations. One of TransLoc’s core goals is to simplify transit by providing tracking services and applications for riders, in addition to fleet tracking and administrative services for managers.

As technology evolves, so does TransLoc. **Our current service offerings include** Fixed-Route Hardware and Software solutions, On-Demand software, Trip Planning, Multi-Modal Application, Mobile Payment Integrations, and Managed GTFS services.

TransLoc offers you a **fully unified experience** capable of delivering on our promise of **seamless mobility**: all transit modes, trips, and solutions are in one place. Additionally, TransLoc offers professional services to help providers plan for their community’s emerging needs, while maintaining an intuitive system for their current needs. We prioritize client success through professional implementation services and excellent in-house client support.



*TransLoc will leverage our multimodal expertise to provide a smart approach to implementing on-demand, subsequent service optimizations, and scalability.*

In 2019, **TransLoc, Ride Systems and DoubleMap** merged to provide better technology solutions and expand our offerings. The resultant team boasts an impressive 40 years of experience in the transit space, and all their expertise, passion, and innovation now work collaboratively as **one TransLoc**.

In 2022, **Modaxo** added TransLoc to its portfolio of companies working to deliver the technology and solutions that move the world’s people. Modaxo’s commitment to delivering software and technology solutions that connect people with the places they need to be creates a unique dual mission that reimagines how people move through universally accessible, equitable and sustainable mobility.

### Company Information

<b>Name of Organization:</b>	TransLoc Inc.
<b>Type:</b>	Private Organization incorporated in the State of Delaware, headquartered in the State of North Carolina
<b>Business Since:</b>	2004
<b>Headquarters Address:</b>	4505 Emperor Blvd. Suite 120, Durham, NC 27703
<b>Federal Identification No.:</b>	20-1528980
<b>Telephone number:</b>	888-959-3120
<b>Website:</b>	<a href="https://transloc.com/">https://transloc.com/</a>
<b>Email address:</b>	<a href="mailto:translocrfp@transloc.com">translocrfp@transloc.com</a>
<b>Parent Company:</b>	TransLoc is a wholly owned subsidiary of Journey Holding Corp. Journey's ultimate corporate parent is Constellation Software Inc., a publicly traded company on the Toronto Exchange
<b>Contact for this Proposal:</b>	Nguyen Le <a href="mailto:Nguyen.le@transloc.com">Nguyen.le@transloc.com</a>

## References

### City of Fairfax CUE Bus



James Lim, CUE Transit Supervisor  
(703) 385-7992

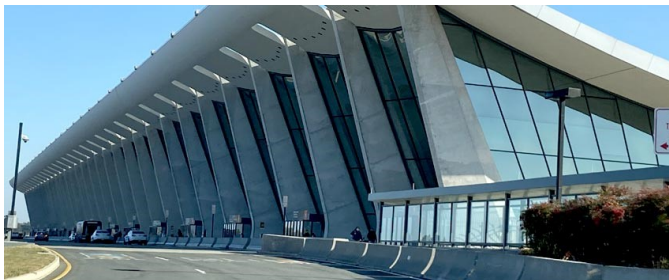
[James.Lim@fairfaxva.gov](mailto:James.Lim@fairfaxva.gov)

Customer since 2022

<https://www.fairfaxva.gov/government/public-works/cue-bus/cus-bus-tracker>

The CUE Bus service uses TransLoc Fixed Route to track its 12 vehicles with automatic passenger counters (APCs). They provide free transit service within the City of Fairfax. Buses operate seven days a week between the Vienna/Fairfax-GMU Metrorail Station and George Mason University.

### Washington Dulles International Airport



David Bond, Regional Manager-Special Projects  
(407) 414-3157

[David.Bond@MWWA.com](mailto:David.Bond@MWWA.com)

Customer since 2021

SP Plus uses TransLoc Fixed Route in their operation of 23 fixed route vehicles with APCs. The service is offered on behalf of the Airport Services Division of Washington Dulles International Airport. Dulles Airport is one of the fastest growing airports in the world and a major East Coast gateway for domestic and international travelers, as well as cargo activities.

### Georgia Institute of Technology



Derrick Walker, Director of Transportation  
(404) 894-9644

[derrick.walker@pts.gatech.edu](mailto:derrick.walker@pts.gatech.edu)

Customer since 2022

<http://bus.gatech.edu/routes>

Georgia Institute of Technology uses both TransLoc Fixed Route and OnDemand products. The Stinger is Georgia Tech's transit system, open to students, employees, and the public. They operate 25 fixed route vehicles on their nine shuttle routes. They also operate 8 on-demand vehicles for their Stingerette nighttime service.

## 4. Work Plan

Scope Requirement	C/N/A	Notes
<i>C=Comply N=Not Comply A=Accommodation N/A=Not Applicable</i>		
<b>General Transit Feed Specification (GTFS)</b>		
Solution to accept existing GTFS data feeds as well as provide a solution to create, edit, manage, and export GTFS data feeds in accordance with GTFS standards	C	TransLoc Fixed Route software allows agencies to import and export static GTFS data and provides an open API for access to GTFS-RT data. Additionally, all Fixed Route customers receive complimentary access to TransLoc Architect. This GTFS feed creation software provides agencies with a way to easily import, create, edit, and export GTFS data.
Detail and demonstrate how GTFS feeds will be initially accepted or imported into their proposed platform as well as how data is edited, exported, disbursed, and the length of time it takes to accomplish all processes.	C	<p>TransLoc’s Fixed Route software can import existing GTFS feeds and offers a one-click export through the Admin/Dispatch Dashboard. TransLoc’s exported GTFS feed follows basic industry standards. In addition, TransLoc allows you to share your real-time information via an open API.</p> <p>The City can upload its GTFS feed data into TransLoc’s Fixed Route Administrative and Dispatching Dashboard. Once imported, the system will validate the feed data. If any errors are found, the system will guide you to the areas needing attention. Once validated, the changes from the existing feed data to the newly imported data will be presented for acceptance or rejection. If no integrated systems such as APCs, AVA, or signage are associated with the account, the new feed can be published after all changes have been accepted. If integrations are present, final confirmation by TransLoc support staff must be completed before publication. The time required for this process depends greatly on the complexity and number of changes being made to the feed. However, standard updates will take a matter of minutes to upload, validate, and review. If a review by TransLoc support staff is required for the changes, that review will take no more than two business days.</p> <p>Using the one-click export, the City can export its active GTFS feed data from the Administrator/Dispatch Dashboard. Additionally, all Fixed Route customers receive complimentary access to TransLoc Architect. This GTFS feed creation software allows agencies to create, import, edit, and export GTFS data.</p>
Vendors should also be positioned to address future GTFS evolutions such as GTFS-Flex, whether existing or part of their roadmap.	C	TransLoc’s product and engineering teams continually evaluate standards, trends, and emerging demands and technologies to ensure our solutions meet industry needs and are well-positioned to support any future evolutions.
<b>GTFS – Static</b>		
Participating vendors will include options to provide a platform that will generate accurate GTFS-Static files.	C	Using the one-click export, the City can export its active GTFS feed data from the Administrator/Dispatch Dashboard. Additionally, all Fixed Route customers receive complimentary access to TransLoc Architect. This GTFS feed creation software allows agencies to create, import, edit, and export GTFS data.

<p>The Real-Time System must either support uploading new GTFS-Static feeds into an Administrative Console or emailing GTFS-Static feeds to a designated email address.</p>	<p>C</p>	<p>TransLoc can accommodate both uploading and emailing GTFS changes.</p>
<p>New feeds should be applied to the Real-Time System within three business days of submission.</p>	<p>A</p>	<p>If FAST makes edits in the Admin/Dispatch dashboard, and there are no integrated systems, the updated feed can be published after all changes have been accepted. If FAST has integrated systems, TransLoc’s support team will review and approve the updates within two business days. If FAST chooses to have TransLoc make all GTFS updates on their behalf, the time to make updates will vary based on the complexity of the changes but will take no more than five business days.</p>
<p>When unforeseen situations that invalidate the GTFS-Static feed affect the overall usability of the Real-Time System, Vendors shall be prepared to apply new GTFS-Static feeds outside normal FAST business hours upon special request.</p>	<p>C</p>	<p>Should an emergency occur, FAST can call TransLoc's U.S.-based emergency phone support 24/7/365 and receive assistance to restore the Real-Time system.</p>
<p>It is desirable for the Real-Time System to download GTFS-Static feeds from a stable URL and apply those feeds automatically.</p>	<p>N</p>	<p>TransLoc does not currently offer this functionality.</p>
<p><b>GTFS – Realtime Feed</b></p>		
<p>The GTFS-Realtime feed shall be available at a stable and publicly accessible https:// URL and require no credentials to access.</p>	<p>C</p>	<p>TransLoc does not have any PII, so our API is public and not behind a login. However, our API calls can be set up with an API key to lockdown data for a client, those will be shown in the developer documentation.</p>
<p>The GTFS-Realtime feed shall have an Incrementality of FULL_DATASET, not DIFFERENTIAL.</p>	<p>C</p>	<p>TransLoc’s GTFS-Realtime feed has an incrementality of FULL_DATASET.</p>
<p>The GTFS-Realtime feed shall take appropriate steps to minimize file size. (E.g., for each trip there should be only one Trip Update message, and that Trip Update message should contain multiple Stop Time Update messages.)</p>	<p>C</p>	<p>TransLoc’s GTFS-RT feed is generated with only required data needed for its use.</p>
<p>Vendors shall ensure that Google Transit, Transit App, and other leading trip planning applications and services can use the GTFS-Realtime feed and shall be prepared to coordinate directly with such services as needed to ensure proper functionality.</p>	<p>A</p>	<p>TransLoc’s open API allows third party applications to ingest the City’s GTFS-RT data. Should problems occur with that capability, TransLoc would work with the City to assist with correcting any issues.</p>
<p>The vendor shall make real-time data feeds available to local developers through a data repository that also houses General Transit Feed Specification (GTFS and GTFS-RT) and shapefile data for all area routes, thereby encouraging and utilizing the wealth of talented developers in our region to create new mobile applications for disseminating schedule, route, and real-time information.</p>	<p>A</p>	<p>TransLoc will provide the City with the data to support this request. TransLoc’s Fixed Route platform offers a flexible open API for many use cases. Developers can use the API to pull essential data from our live vehicle tracking website and integrate this data into other existing mobile apps and web interfaces. This API is accessible via URL, which the City can share with any developers it desires. Using TransLoc Architect, the City can generate a URL pointing to the desired GTFS feed that can also be shared. Alternatively, the City can use the one-click download option from the Administrator/Dispatcher Dashboard to export the current GTFS file used in TransLoc’s Fixed Route software and share the resulting zip file.</p>
<p><b>System Operations</b></p>		
<p>To improve customer's confidence that the route maps and predictive information is correct and up-to-date by providing FAST with a tool to change the routes immediately as information comes in to Dispatch about emergency, mechanical breakdowns, and unplanned route deviations. The</p>	<p>A</p>	<p>Using both TransLoc Architect and Fixed Route software, FAST has the ability to edit and publish updated GTFS feeds. If FAST has no integrated systems such as APCs, AVA, or signage associated with the account, the new feed can be published after all changes have been accepted in the Fixed Route</p>

<p>almost immediate correction of bus route maps is as important to the Project as the ability to send service/passenger alerts to subscribing transit customers (high priority). This GTFS editing interface will allow FAST staff to create or update maps for temporary detours for construction, test routes, summer and/or holiday routes, and special event routes.</p>		<p>software. If integrations are present, final confirmation by TransLoc support staff must be completed before publication to ensure all integrated services are updated accurately.</p>
<p><b>Mapping Tools</b></p>		
<p>Tools and applications identified within this RFP for both FAST and the public should interface with a user friendly mapping application. Participating vendors should provide an overview of their base map platform and the process for updating the mapping.</p>	<p>C</p>	<p>TransLoc's maps, powered by Google Maps, include the most updated map details possible. Users can zoom in and out, scroll, and pan to see an overview of the map, a street-level view, and everything in between. If an update to the map is needed, TransLoc can assist FAST with communicating these changes to Google directly.</p>
<p><b>Third-Party Tracking Hardware</b></p>		
<p>AVL systems and other on-board systems that provide vehicle location data ("Third-Party Tracking Hardware") are currently in use and FAST will provide technical documentation and access credentials for accessing real time location data from their Third-Party Tracking Hardware. Vendors shall use this information to develop software ("Integrations"), also hosted by the Vendor, which provides real-time location data to the Real-Time System.</p>	<p>C</p>	<p>TransLoc can work with the Sierra Wireless RV50x routers for CAD/AVL only, but if FAST wants to integrate other services such as AVA, APCs, or signs, the router will need to be upgraded to a Peplink. TransLoc has a robust and trusted working relationship with Peplink, the manufacturer of the MAX BR1 Mini mobile router. The Peplink router provides reliable GPS tracking (SIM Card included) and Wi-Fi and supports hardware integrations.</p>
<p>Vendors should be prepared to sign non-disclosure agreements with Third-Party Tracking Hardware suppliers to receive technical documentation and access credentials.</p>	<p>C</p>	<p>TransLoc has a strong working relationship with Peplink, the MAX BR1 Mini mobile router manufacturer, and has all the necessary rights and access to retrieve required documentation and access credentials.</p>
<p>When FAST replaces or upgrades Third-Party Tracking Hardware or a Third-Party Tracking Hardware supplier makes changes to the mode of accessing real-time location data, Vendors should be prepared to update the Integration at no additional cost to FAST.</p>	<p>C</p>	<p>If FAST uses a TransLoc supplied router, the CAD/AVL software integration will occur automatically.</p>
<p>All Third-Party Tracking Hardware will provide latitude, longitude, and timestamp. Much of the hardware provides additional data points, which are listed below. However, the Real-Time System shall be prepared to function when these data points are unavailable, even when FAST's Third-Party Tracking Hardware usually provides them:</p> <ol style="list-style-type: none"> <li>a. Heading</li> <li>b. Speed</li> <li>c. Route identifier</li> <li>d. Trip identifier</li> <li>e. Direction identifier</li> <li>f. Pattern identifier</li> <li>g. Block identifier</li> <li>h. Operator identifier</li> </ol>	<p>C</p>	<p>Should a router lose cellular signal for some time, TransLoc Fixed Route will continue to show information for that unit on the various user interfaces, as this data will be held in memory and will update automatically when cellular connectivity is regained.</p>
<p>Identifiers for routes, trips, directions, patterns, and blocks reported by the Third-Party Tracking Hardware may not match those used in FAST's GTFS-Static feed. Where they differ, FAST will provide mappings between the Third-Party Tracking Hardware's identifiers and the GTFS-Static identifiers upon request.</p>	<p>A</p>	<p>TransLoc provides complimentary access to Architect, a GTFS management software that FAST can use to keep its GTFS data current. Additionally, TransLoc Fixed Route software allows FAST to upload GTFS feed data when necessary and update the information in the system immediately if there are no integrations with other systems.</p>



<p>The Real-Time System shall monitor vehicle location signals to determine loss of the incoming real-time feed from the Third-Party Tracking Hardware and provide an automatic notification to one or more System contacts.</p>	<p>A</p>	<p>FAST can view the connectivity status of onboard equipment in the Vehicle Tracker interface, but no notification will be generated.</p>
<p><b>Real-Time Prediction Algorithm</b></p>		
<p>The Real-Time System shall use real-time location data and the GTFS-Static feed to identify the trip being operated by each in-service vehicle (and identify vehicles that are deadheading to begin a service trip). Once it has identified the trip, it shall employ an algorithm to generate vehicle arrival and departure time predictions for stops on the vehicle's current trip and following trips. The prediction algorithm should make predictions based on the actual location of the vehicle rather than the time at which the Real-Time System received the data. The prediction algorithm should also generate predictions for future trips.</p>	<p>A</p>	<p>The predictive arrival algorithm uses scheduled data and bus location as a basis for estimations and weighs the current situation and historical data to generate near-term predictions. TransLoc provides multiple projections for adherence, including those based on schedule (next and second to next) and real-time projections based on "micro points," which would be pulled from the increments established in the TransLoc Administrator platform. The algorithm updates the estimated time of arrival (ETA) every 3 to 5 seconds when the bus GPS device checks in.</p>
<p>The Real-Time System shall retain records of generated predictions and provide this data to FAST upon request or via an Application Programming Interface for use in debugging and accuracy testing.</p>	<p>N</p>	<p>TransLoc does not offer this information as the system generates predictions in real time that could change as the vehicle travels along its route. Since the predictions are variable, there is no specific point at which you can pull the prediction data to compare to actual events.</p>
<p><b>Real-Time Prediction Information</b></p>		
<p>The Vendor shall make the real-time location and prediction information available thru mobile, web, and SMS text messaging technologies. Some transit customers have limited financial means to purchase expensive technology like smartphones, so it is critical that this project also provide a way to share bus route and schedule information with customers using a simple cellular phone with texting capabilities.</p>	<p>C</p>	<p>TransLoc Fixed Route provides several ways for riders to obtain real-time location and prediction information. The TransLoc Mobile Application is free to download and available for iOS and Android. TransLoc's Public Website is accessible from any internet-enabled device and allows riders to subscribe to stops and set up SMS notifications, even without a smartphone. TransLoc's open API can pull essential data from our live vehicle tracking website and integrate it into other mobile apps and web interfaces. TransLoc also offers SMS Text capability as an optional add-on where a rider can text a designated number with a stop ID and receive an ETA for the next arrival to that stop.</p>
<p><b>Administrative Console</b></p>		
<p>Ability to add/edit/remove users and assign specific permissions.</p>	<p>C</p>	<p>Each user is provided with different log-in rights and their own user-rights to access the system. TransLoc offers varying levels of privileges:</p> <ul style="list-style-type: none"> <li>• View Only – This allows them to see the secure site, they can view assignments and blocks. They can see if buses are running on-time or falling behind. This privilege does not allow any changes to the site, only the ability to log in and view.</li> <li>• Assign Vehicles – This allows all rights above plus they can make changes to vehicle assignments.</li> <li>• Admin – Has all the rights of the Assign Vehicle, plus has all rights to reporting and scheduling.</li> </ul>
<p>Setting the current route, trip, or block for a vehicle, potentially overriding the values reported by the vehicle's Tracking Hardware and clarifying how assignments are made, manually by Dispatch or by the operator.</p>	<p>C</p>	<p>The route schedules allow customers to assign vehicles. The system holds on to the assignments, but also allows for in advanced and real-time reassignment of vehicles to different routes/blocks. All past assignments can be seen in the reports provided as well.</p>

Tracking all powered-on revenue vehicles at all times and display route and schedule adherence (RSA) graphically, such as the color of icon, and in tabular format.	C	The Admin/Dispatch dashboard allows agencies to view on-time performance in real-time on all live vehicles, which are identified and color coded. Triggers that define when each color is presented (late and early) are configurable by Administrators, in addition to other settings. On-time performance can be viewed on the Live Map Module, Vehicle Module, and Stops Module in the Admin/Dispatch dashboard.
Viewing the current location, assignments, delay status (running on/off route, on time, early, or late), bunching or gapping, of all vehicles on a map. The configuration of "off-route" "early," "late" and "on time" thresholds to be determined by FAST staff.	C	The Live Map module in the Admin/Dispatch dashboard allows agencies to view on-time performance in real-time on all live vehicles, which are identified and color coded. Triggers that define when each color is presented (late and early) are configurable by Administrators, in addition to other settings.
Alert notifications related to unassigned blocks of service (i.e., without a logged-on vehicle), vehicles running behind/ahead of schedule, vehicles running off-route, etc.	C	The Events Tab in the Vehicle Tracker interface shows incoming alarms from your devices. In the Events tab header, you can see if there are active events/alarms triggered by Event Rules set up. Some events include ignition on/off, speed zone violations, geofence/off-route, early departures, and late departure changes. Users can receive reports on any of these events and be sent via email to a client or Project Manager.
Notifications regarding passenger load and vehicle capacity.	C	If FAST installs TransLoc provided Automatic Passenger Counters, the real-time vehicle capacity information is displayed on the Admin/Dispatch Live Map module and both the Public Website and Rider Mobile Application.
Viewing the previous assignments, position, passenger load and delay status of all vehicles in the system, at any time within the past thirty-one (31) days, and "replay" previous vehicle paths. Replay functionality should be available within 2 minutes.	C	TransLoc offers historical playback through the Vehicle Tracker, with a breadcrumb-style playback tool for all vehicle data transmissions and a conventional report for logon/logoff data. This tool allows administrators to rewind a single bus location or select a route and view the exact locations of multiple buses over a precise period of time. Administrators can select a specific date, time, route, and range to observe a vehicle's exact location.
The ability to post service alerts, notifications, or messages to the public.	C	Administrators can instantly send out announcements and notifications alerting riders to special events, emergency changes, and much more. Additional service announcements can be directly posted in the rider-facing live map both on the browser and within the mobile app. Riders can view service changes, outages, and announcements for the overall route and even individual stops on the mobile app. This message can be expanded to provide more information and link to the agency website.
Creating, updating, and discontinuing Service Alerts with all information supported by the GTFS Realtime format.	A	Administrators can instantly send out announcements and notifications alerting riders to special events, emergency changes, and more. At this time, TransLoc Fixed Route does not support service alerts in the GTFS Realtime data.
<p>Generating, reviewing, printing, and exporting reports, including but not limited to reports of:</p> <ol style="list-style-type: none"> <li>On-time performance, by route, stop, and operator.</li> <li>Prediction availability and accuracy.</li> <li>Web Map and SMS Service usage.</li> <li>Telephone usage (if applicable).</li> <li>Mobile application usage (if applicable).</li> <li>Ability to create customized reports.</li> </ol>	A	TransLoc Fixed Route software reports on each vehicle's on-time performance, which can be filtered by route and stop. The TransLoc platform does not include a driver management system or driver information. The driver's name with driver ID can be included, but it is not connected to a route, stop, or shift. The driver ID can be connected to a vehicle and identified that way. TransLoc does not provide reports on prediction availability and accuracy, web map and SMS service usage, or

		mobile application usage. Telephone usage does not apply to the TransLoc platform. All TransLoc reports can be downloaded in CSV or Excel and manipulated there, but customized reports are unavailable.
FAST shall be able to create Administrative Console user accounts (identified by username or email address and password) for its staff. There shall be no limit on the number of user accounts and no fee assessed for each user account. Each user account may have a unique set of access permissions.	C	Each user has a unique login and individual user rights, either Admin, Assign Vehicles, or View Only, to access the system. Users will have their unique username and password to log in to the system. There is no limit to the number of system user accounts.
<b>Application Programming Interfaces</b>		
The Real-Time System may provide additional public Application Programming Interfaces (APIs) which include the same information as the GTFS-Realtime feeds and other public interfaces in alternate formats.	C	TransLoc's Fixed Route platform offers a flexible open API that can meet many different use cases. The API can be used to pull in essential data from our live vehicle tracking website, including historically pulled route, stop, schedule, and ridership data, and integrate this data into other existing mobile apps and web interfaces. TransLoc's open API is controlled by unique API keys, ensuring only authorized users can access this data.
In addition, the Real-Time System shall provide APIs (which require authentication) for functions in the Administrative Console, including: <ol style="list-style-type: none"> <li>1. Viewing the location and status of vehicles that are not in service (and thus included in the public feed).</li> <li>2. Setting the route, block, or trip for a vehicle, potentially overriding the values reported by the vehicle's Tracking Hardware.</li> <li>3. Viewing the vehicle assignments associated with routes for use by FAST fare collection provider.</li> <li>4. Creating, updating, or deleting Service Alerts.</li> <li>5. Downloading historical data, including: <ol style="list-style-type: none"> <li>a. Stop arrival and departure times.</li> <li>b. Bus locations during a specific time period ("tracks").</li> <li>c. Generated arrival/departure time predictions, with accuracy.</li> </ol> </li> </ol>	N	TransLoc does not currently offer this functionality.
<b>Data Management and Ownership</b>		
All data collected by the system should be archived for a minimum of three years. This data will be owned by FAST and available through an API or other data transferring format. The data must be received in a format that allows for manipulation, such as .CSV or Excel. The vendor will describe disposition of data and the cycle time for data requests in proposal.	A	All data collected will be kept for the life of the contract. TransLoc will grant FAST a limited, revocable, non-exclusive, and non-transferable right to access and use the Software. All data for FAST is able to be downloaded in CSV and Excel formats.
<b>Intelligent Transportation System (ITS)</b>		
National ITS Architecture - This project must adhere to the full range of ITS standards whose development is being sponsored by the USDOT.	A	TransLoc Fixed Route software complies with the system requirements outlined in PT01: Transit Vehicle Tracking, and TransLoc's APCs comply with the system requirements outlined in PT07: Transit Passenger Counting.
National Transit Map - The Vendor shall assist transit agency to provide the requested information and data	C	TransLoc Fixed Route software allows agencies to import and export static GTFS data and provides an open API for access to GTFS-RT data. Additionally, all Fixed Route customers receive complimentary access to TransLoc Architect. This GTFS feed creation software allows agencies to easily import, create, edit, and export GTFS data.

Security and Support Services		
To ensure that the Real-Time System functions reliably, accurately, and securely, Vendors are expected to continue supporting, maintaining, and improving the Real-Time System for the duration of the contract.	C	The proposed software will be continually supported by TransLoc, and updates are made on an average of one server update per week. Updates will be done automatically at no additional cost and performed during a timeframe which does not interrupt administrators or users.
Training and training documentation for staff administering the system.	C	TransLoc provides training before the system launch to ensure staff proficiency. Training sessions are recorded and provided to clients for refresher courses or new hires. Training documentation will be shared with FAST in PDF format during the project's implementation phase.
Email support for basic maintenance, with guaranteed response times.	C	TransLoc offers best-in-industry customer service and support as part of its basic service at no additional cost for any contract type or length. Minor errors or requested enhancements, such as general information, documentation errors, and software modification requests, will be addressed within three business days. For errors causing minor feature/function failures that have a minor impact on usage, TransLoc support staff will respond within one business day. Errors that cause significant feature/function failure and severely restrict operations will be responded to within four business hours. If the error causes most of the service to be down and unusable, resulting in total work disruption or another critical business impact, then TransLoc support staff will respond within two business hours.
Emergency support, outside business hours, when an issue affects the overall usability of the Real-Time System.	C	In an emergency, TransLoc will provide twenty-four (24) hours a day, seven (7) days a week telephone assistance.
Service Level Agreement (level of uptime).	A	TransLoc substantially conforms to industry standard Service Level Objectives. TransLoc historically and currently maintains 99% uptime.
Redundant network architecture and backup and disaster recovery strategies.	C	For Disaster Recovery procedures, TransLoc utilizes servers in multiple geographical locations. In the event of a hardware failure, such as a data center losing power, operations can continue on alternative servers. Databases include a replicated hot standby server so that data is not lost. When a database failure is detected, the standby server is promoted and the failed database shut down and replaced automatically, allowing for almost instantaneous failover capabilities.
Data security strategies.	C	TransLoc uses the following list of controls to address software security: <ul style="list-style-type: none"> <li>• HTTPS encryption available</li> <li>• Separate databases for each customer</li> <li>• "Least privileges" access policy</li> <li>• OWASP Top 10 assessments</li> </ul> A firewall blocks access to unused ports in front of web routers. Database servers are not exposed to the public Internet and are only accessible through TransLoc's internal network.
Software updates to fix bugs and vulnerabilities, including in Integrations with Third-Party Tracking Hardware.	C	The TransLoc software is built by an agile software team with the goal of continuous feature development. It is updated on average every 2.5 weeks with new features, feature enhancements, and bug fixes.

Training		
<p>The Proposer should describe their overall user training approach. The Proposer will provide a Training Plan identifying the estimated minimum number of training days and hours that will be provided as a part of the Project. The Proposer shall assume that staff does not have any specific knowledge of the System; however, the Proposer can assume that staff is generally qualified for the function for which they are being trained in (e.g., Operator, Dispatcher, Maintenance, System Administration, etc.).</p>	<p>C</p>	<p>TransLoc provides training before system launch to ensure staff are proficient with the system. Training sessions are recorded and provided to clients for refresher courses or new hires. TransLoc estimates that training on the public site and mobile application will take 30 minutes, training on the admin/dispatch dashboard and vehicle tracking site will take one hour, training on the reporting suite will take 30 minutes, and training on the TransLoc Architect platform will take one hour. A complete training plan is included in the following proposal.</p>
Warranty and Maintenance		
<p>Service Level Agreement-The vendor shall provide a proposed service level agreement that will include the data network(s) and other devices, or subsystems and the incentives/ penalties associated with the performance expectations not being met.</p>	<p>A</p>	<p>TransLoc uses Service Level Objectives to measure Service performance in Support, Service, and Information Technology. Data servers and networking components are managed using industry-standard practices. Monitoring and notification solutions are utilized to alert teams of outages. Escalation Process - Issues reported or of which TransLoc otherwise becomes aware, are addressed in accordance with the priority of the issue. The priority level shall be mutually determined by FAST and TransLoc.</p>
<p>Confidence Testing Support - The vendor shall provide functional and technical assistance (onsite or remote) for 90 calendar days after system acceptance which shall be considered the confidence testing period. This technical assistance shall be provided at any site (stops or vehicles) throughout the system. If onsite assistance and support is provided, it shall be available within a 24-hours' notice during this period of time.</p>	<p>A</p>	<p>The implementation team's standard post-launch support is remote and lasts two weeks. During this time, TransLoc will make all necessary changes and adjustments to the system and fine-tune the operations. After this period, FAST will be transitioned to TransLoc's Support Team. Should FAST desire an extension of this post-launch support, the implementation timeline will be extended and additional fees will be assessed.</p>
<p>Ongoing Support - The vendor shall provide ongoing user and technical support for a period of at least three years under a Maintenance and Support Agreement. Such agreement shall include providing all generally available product updates and upgrades, support for installing and configuring product updates as they become available as well as user training for upgrades or enhancements, when required, throughout the support period. The vendor shall provide a single source of technical support for resolution of issues and problems including those pertaining to any third-party vendors. In such cases of a problem involving a third-party vendor, the vendor shall act as the principal point of contact and shall actively work toward resolution of the problem. The vendor shall provide a typical maintenance support agreement.</p>	<p>C</p>	<p>TransLoc offers best-in-industry customer service and support as part of its basic service at no additional cost for any contract type or length. Any TransLoc client can expect U.S.-based emergency phone support 24/7/365 and live support during business hours from 8:00 A.M. to 8:00 P.M EST, excluding regular business holidays. Toll-free customer service is always available, and when necessary, TransLoc offers web meetings to resolve or explain issues more thoroughly. Customers can reach the support at the designated email. TransLoc can support transit staff through the remote configuration of the hardware. We can remotely complete set-up, updates, and other needed system configurations without significant transit staff involvement.</p>
<p>Warranty-A warranty will be provided for the software, implementation services, hardware and the operability of the System for at least three (3) years, which is to begin on the date of system acceptance. A copy of the Vendor's warranty will be provided with the Proposal.</p>	<p>A</p>	<p>All hardware is sold with a replacement warranty for the first 12 months from the date of shipment. This warranty period can be extended by two additional years with the purchase of TransLoc's Extended Warranty. TransLoc's Extended Warranty covers equipment failure due to defects in material and workmanship.</p>
<p>Software -The Vendor (software licensor) warrants that the software conforms in all material respects to the requirements and specifications. The Vendor warrants that the software's</p>	<p>A</p>	<p>TransLoc Fixed Route software conforms to FAST's requirements and specifications, as indicated in this Proposal. TransLoc will make reasonable efforts to correct suspected</p>

capabilities satisfy the functional requirements herein. Furthermore, the warranty shall be valid for at least three (3) years, which is to begin on the date of system acceptance.		errors when such errors are reported to TransLoc. TransLoc does not warrant that all service errors will be corrected.
Implementation Services - Vendor warrants implementation services (e.g., work products, developed modifications, system configuration, etc.) for at least three (3) years, which is to begin on the date of system acceptance.	C	TransLoc warrants that the implementation services will be performed in a workmanlike manner consistent with industry standards.
The System -The Vendor shall warrant that the System shall properly operate for at least three (3) years, which is to begin on the date of system acceptance.	C	TransLoc will make reasonable efforts to correct suspected errors when such errors are reported to TransLoc. TransLoc does not warrant that all service errors will be corrected.
<b>Optional Functions/Features</b>		
<b>Mobile Data Terminals</b>		
MDC/MDT units will provide bus operators with passenger manifests, real-time routing/mapping directions, and in and out messaging. It is anticipated that FAST may want to integrate other bus operations or software on the equipment.	A	The Mobile Data Terminal (MDT) will display the previous stop, current stop, and the next stop with schedules. The focus was to provide a display that provides some options on how to view the display, while supporting operators with an outline of the route.
<b>Dispatch Messaging</b>		
The system shall enable Dispatchers to send data and voice messages (internal and public announcements) to one or more selected vehicles and routes using MDTs. Custom or free-form messages and a set of canned messages shall be supported. Predefined data messages shall be configurable by authorized Dispatchers and shall be available for rapid selection. Vehicle operators shall be able to reply to Dispatch by selecting from among a list of canned data messages. Dispatchers can select whether the announcement shall be displayed on the interior sign, played on the inside speakers or both.	N	TransLoc does not currently offer this functionality.
<b>Mobile Applications</b>		
Vendors may recommend a mobile application for viewing the information generated by the Real-Time System and planning transit trips using that information. This application should be supported on no less than 90% of smart phones and other mobile devices in North America using the Apple iOS and Google Android operating systems, and available for download in the Apple App Store and the Google Play Store.	C	The TransLoc Rider app offers native mobile applications for iOS and Android and is the most popular way for users to access GPS transit information. The app is available in Spanish and Simplified Chinese with WCAG 2.0 AA compliance to meet all mobile accessibility needs. It includes a Trip Planner in addition to a "Closest Stop" feature for riders to be able to locate services easily. The app was built to make it easy to ride the bus. Through the app and rider webpage, users have access to vehicle and route locations, estimated arrival times, and important announcements, with the ability to view multiple routes simultaneously based on the user's location. The TransLoc App has zero delay tracking.
Plan a transit trip between two user-selected points at any time for which GTFS-Static data is available.	C	Riders can easily plan their trips through the app using TransLoc's Trip Planner. This feature allows riders to see all the steps needed to proceed with an entire trip, including connecting routes. Google Transit backs the Trip Planner and will pull information from the nearby transit services, providing riders with ample details to plan a comprehensive transit journey.
Pan and zoom the map view using conventional touch controls (specify base map used for internal and external views).	C	TransLoc's maps are powered by Google Maps and include the most updated map details possible. Users can zoom in and out, scroll, and pan to see an overview of the map, a street-level view, and everything in between.

View multiple routes at once.	C	Route and vehicle icons are color-coordinated for easy identification, and the user can choose to view just one or multiple routes at a time on both the Public Website and Mobile App.
Select which routes to display from a list.	C	TransLoc's Mobile App displays a list of routes available in the rider's vicinity. The routes are sorted according to priority preferences based on favorite, closest, and often used routes.
View Service Alerts that apply to a particular agency, route, or stop.	C	Users can customize which agencies they want to view, receive announcements from, and access organized service information from the agency. Riders can also favorite and subscribe to individual stops to more easily access them and view filtered announcement information.
Distinguish routes, stops, and vehicles serving routes by the "route color" included in the GTFS-Static feed for that route.	C	Route and vehicle icons are color-coordinated for easy identification, and the user can choose to view just one or multiple routes at a time.
Ability to see arrival/departure times for stops with the scheduled and predicted arrival or departure times, including the ability to distinguish times when a route serves a stop while traveling in both directions.	C	The predictive arrival algorithm, a key feature of the app, uses scheduled data and bus location as a basis for estimations. It weighs the current situation into near-term predictions, along with historical data, to provide users with real-time information. The algorithm updates the estimated time of arrival (ETA) every 3 to 5 seconds, ensuring users are always informed. Users can easily view the upcoming ETAs for each stop and route information by clicking on or searching for a route and stop. PDF or URL schedules can be added to routes within the "list view" for support information, further enhancing the user's control over their journey.
Where the GTFS-Static feed specifies a "route_url" value for a route, click a link to open that URL in a Web browser.	A	This information can be set up in the Rider App but will not automatically pull from the GTFS data feed.
Where the GTFS-Static feed specifies a "stop_url" value for a stop, click a link to open that URL in a Web browser.	N	TransLoc does not currently offer this functionality.
Directly open the mobile application used by FAST for mobile fare payment or open the Play Store/App Store (as appropriate) to download the application.	N	TransLoc does not currently offer this functionality.
Data for FAST shall be available from the mobile application regardless of the location reported by the user's device.	C	Riders can search for locations in the routes tab or see the stops that are closest to them. Users can tap on the map to center the screen on their current location or use the search button on the Routes tab, which allows them to enter an address into a standard text field. The map will automatically move to the specified location and load fixed route transit data for the surrounding area.
<b>Telephone Service</b>		
Connect the matching stop code service to a telephone line to which the passenger can call, enter a stop code and receive in real time or through static feed the automated response listing the next arrival/departure times for each route that will serve the stop. When a route serves a stop while traveling in both directions, the message shall differentiate the times.	N	TransLoc does not currently offer this functionality.
<b>Web Map</b>		
The Real-Time System shall be able to provide a mapping tool accessible to the public via the Internet ("Web Map"). The Web Map shall display route lines and stops according to FAST's	C	Using the Public Website, users can click on routes, vehicles, or stops to get a real-time ETA or scheduled time of arrival and information about the next bus. The live map interface shows

GTFS-Static feed, and current vehicle positions according to the GTFS-Realtime feed.		the bus number, capacity, and upcoming stops with a correlating ETA or scheduled arrival times.
View all the routes in the system at once, or any subset of them.	C	Users can choose from a list of all available routes to view one or multiple routes simultaneously.
Select which routes to display from a list.	C	Users can choose from a list of all available routes to view one or multiple routes simultaneously.
View Service Alerts that apply to a particular agency, route, or stop.	C	The public map also features an alert message window that administrators can use to display messages they wish the users to read.
Pan and zoom the map view using conventional "click/drag/scroll" controls.	C	TransLoc's maps are powered by Google Maps and include the most updated map details possible. Users can zoom in and out, scroll, and pan to see an overview of the map, a street-level view, and everything in between.
Distinguish routes, stops, and vehicles serving routes by color.	C	Route and vehicle icons are color-coordinated for easy identification.
Ability to see arrival/departure times for stops with the scheduled and predicted arrival or departure times. Including the ability to distinguish times when a route serves a stop while traveling in both directions.	C	Using the Public Website, users can click on routes, vehicles, or stops to get a real-time ETA or scheduled time of arrival and information about the next bus. The live map interface shows the bus number, capacity, and upcoming stops with a correlating ETA or scheduled arrival times. Beyond the route and stop information available in the route list, clicking on a vehicle shows its ETA information for its next two stops.
Click a link to access the system's routes and schedules page.	C	Each individual route can have a link or PDF document added for riders to learn more about agency routes and services.
Where the GTFS-Static feed specifies a "route_url" value for a route, click a link to access that page.	A	This information can be set up in the Public Website but will not automatically pull from the GTFS data feed.
Where the GTFS-Static feed specifies a "stop_url" value for a stop, click a link to access that page.	N	TransLoc does not currently offer this functionality.
Preferred options would include the ability to provide custom branding. Specify base map for internal and external views. Web Maps shall have the ability to be embeddable in other Web sites.	C	The map website has a custom URL name with agency branding and offers free access to the public.
<b>Changeable Messaging Signs</b>		
The Vendor's Real-Time solution should provide for vehicle location, arrival, and departments via Wi-Fi/broadband/ethernet to passenger displays at transit terminals and bus stops.	C	TransLoc can offer a URL directly connecting to the Fixed Route software to display real-time information on an internet-enabled monitor or tablet. These Wayside or Lobby signs are available with a map, roller, or terminal view and are flexible enough to display horizontal or vertical information.
<b>Headsign Integration</b>		
Proposers should provide an optional solution that integrates with existing headsign systems, which have been provided by multiple vendors. Digital headsigns are used in the fixed-route revenue vehicle fleet.	A	We offer and integrate with various sign options, including vehicle signs, wayside signs, and interactive kiosk signs. Our integration success extends to signs manufactured by Hanover, Luminator, and IPdisplays. However, it's important to note that the integration capability depends on the unique model type, serial number, and the specific controller unit (if applicable) used to connect the sign to the vehicle.
Automatically control headsigns using directional data provided by AVL system	A	If TransLoc is able to integrate with the headsigns onboard FAST vehicles, the Fixed Route software will determine the information displayed.
Integrate with a Covert Emergency Alarm to display exterior Emergency messages	N	TransLoc does not currently offer this functionality.



Route Planning and Scheduling		
Seamless integration from service design, vehicle assignment, creating timetables, developing operator schedules to stop level schedule adherence, boarding and alighting counts, and fare collection data is desired.	N	TransLoc does not currently offer this functionality.
Test fixed route designs and evaluate impacts instantly while providing: <ol style="list-style-type: none"> <li>Critical route data including but not limited to cost, revenue hours, number of vehicles</li> <li>Critical route benefit data including but not limited to jobs and population, and other demographic data within various distances from bus stops</li> <li>Ability to overlay critical data layers from established data sets, including but not limited to population, % poverty, commuter data</li> <li>Ability to add custom data layers related to local areas of interest, service areas, passenger boardings etc.</li> <li>Ability to add Bus Stops with critical data related to generate of Timetable</li> </ol>	N	TransLoc does not currently offer this functionality.
Generate Editable Timetables from Route Designs	N	TransLoc does not currently offer this functionality.
Generate a GTSF ( <a href="https://developers.google.com/transit/gtfs/guides/best-practices">https://developers.google.com/transit/gtfs/guides/best-practices</a> ) from Route Designs	N	TransLoc does not currently offer this functionality.
Generate an Editable Schedule from Route Designs <ol style="list-style-type: none"> <li>Should include a variety of editable schedule preferences</li> <li>Should include easy to edit</li> </ol>	N	TransLoc does not currently offer this functionality.
Generate visuals to assist with communicating route changes to boards and stakeholder	N	TransLoc does not currently offer this functionality.
Evaluate micro-transit opportunities providing: <ol style="list-style-type: none"> <li>Ability to draw service areas</li> <li>KPI's for the service like those for Fixed Route above</li> <li>Ability to modify service area in receive KPI's instantly</li> <li>Ability to incorporate vehicle and operator needs into Schedule</li> </ol>	N	TransLoc does not currently offer this functionality.
Advanced Reporting		
Use standard reports to generate performance, route, vehicle, revenue, mileage (to include directional route mileage), ridership, NTD, incident/accident, and other reports.	A	TransLoc offers multiple report types for agency administrators through the Administrator Portal (Reporting Suite) and GPSGate/Vehicle Tracker interface as part of its core service. Reports are categorized based on the information provided, including general, performance, ridership, NTD, and vehicle activity. General reports give an overview of the services operated, including the time spent at a stop, vehicles utilized, route headways, and general service characteristics. Performance reports provide details on the services operated, including missed, early, and late trips, and they compare actual activities to scheduled times. Ridership reports are only available to customers with integrated Automatic Passenger Counters or Driver Assisted Passenger Counting. These reports provide raw passenger counts and refined passenger data associated with routes and stops. The NTD report provides necessary data for the National Transit Database's monthly

		reporting in the MR-20 form and annual reporting in the S-10 form. Vehicle Activity reports, accessed in the Vehicle Tracker, provide information about vehicle speed, idle time, trip time, and distance traveled.
Analyze ridership, boardings and alightings for schedule adjustments and route planning.	<b>A</b>	Agencies can view ridership count by route, stop, and vehicle. The analysis provides customers with a detailed view of the heavily used stops and routes, yielding an ability to optimize routes and system performance. Filters are available to customize the data needed and the desired date ranges. Ridership count by routes includes graphs for visual comparisons. Administrators can download reports in multiple formats, including .xls, .csv, and .pdf, for analysis and documentation.
Track schedule adherence.	<b>C</b>	TransLoc's Performance reports provide details on the services operated, including missed, early, and late trips, and they compare actual activities to scheduled times.
View historical data over periods of time.	<b>C</b>	All reports are accessible through a web browser for viewing and accessing historical information.
All reports will have the capability to export information into a common analysis and text editing office software such as .xlsx, .doc, .csv, and .pdf formats. The reporting solution shall have built-in feature for an agency to generate ad-hoc reports with a simple form building that supports drag and drop of existing data in the data warehouse. This should allow FAST users to copy existing reports and make modifications or to create new reports. Ideally reports will have the ability to be automatically generated and emailed to a list of FAST staff. Preferred systems will include enhanced visualization capabilities of data including the use of dashboards, charts, graphs, etc.	<b>A</b>	All reports are accessible remotely through a web browser for viewing and download. Administrators can filter reports by time, date, date range, route, stop, bus, or any combination of these criteria with unique parameters. TransLoc's reports also allow access to historical information retained for the duration of the contract. Administrators can download reports in multiple formats, including .xls, .csv, and .pdf.

TransLoc's CAD/AVL system provides real-time information within an intuitive control center for agencies of any size. The platform allows for the management and configuration of settings for effortless use of the software for riders, administrators, and drivers. The frequency of reporting real-time vehicle location from the agency dashboard shows an auto-refresh rate of every 3-5 seconds. The system allows for overall fleet management, access to a Reporting Suite, GTFS feeds, NTD report (APC required) exporting capabilities, and the flexibility of modules, which allow for many features and interface customization options for administrators and dispatchers based on fleet management needs.



With TransLoc, customers have the option to receive everything listed below:

#### 1. Hardware Integrations Provided

TransLoc provides in-house hardware integrations when desired that work with our CAD/AVL solution. Our integrations offer the ability for management within a single system and provide accurate ridership reporting. TransLoc offers **Pepwave Routers** (GPS tracking, Wi-Fi, real-time data), **Automatic Passenger Counters** (APC), **signage** (interior/exterior, headsigns, wayside), **Automated Voice Annunciation** (AVA), **Rugged Tablets**, **badge scanners** and much more.

#### 2. Real-Time Tracking Options

**The TransLoc Mobile App (iOS and Android):** Riders receive zero-delay real-time vehicle tracking and can set up arrival and SMS notifications. All features are accessible in multiple languages and compatible with accessibility requirements (WCAG 2.0 AA compliant). The app also includes a built-in Trip Planner, and as an optional offering, it can add on-demand services as it is a multi-modal app.

**The Public Website:** The website includes many of the mobile app's features, including riders' ability to subscribe to stops and set up SMS notifications, even without a smartphone.

**Open API:** The API can pull essential data from our live vehicle tracking website and integrate it into other mobile apps and web interfaces.

#### 3. Driver Solution

**The TransLoc Fixed-Route Driver App (Android):** This driver App was created with safety in mind. Its simple design decreases the amount of interaction drivers need to have with the tablet. The current route and summary information for the next stops are displayed on a map.

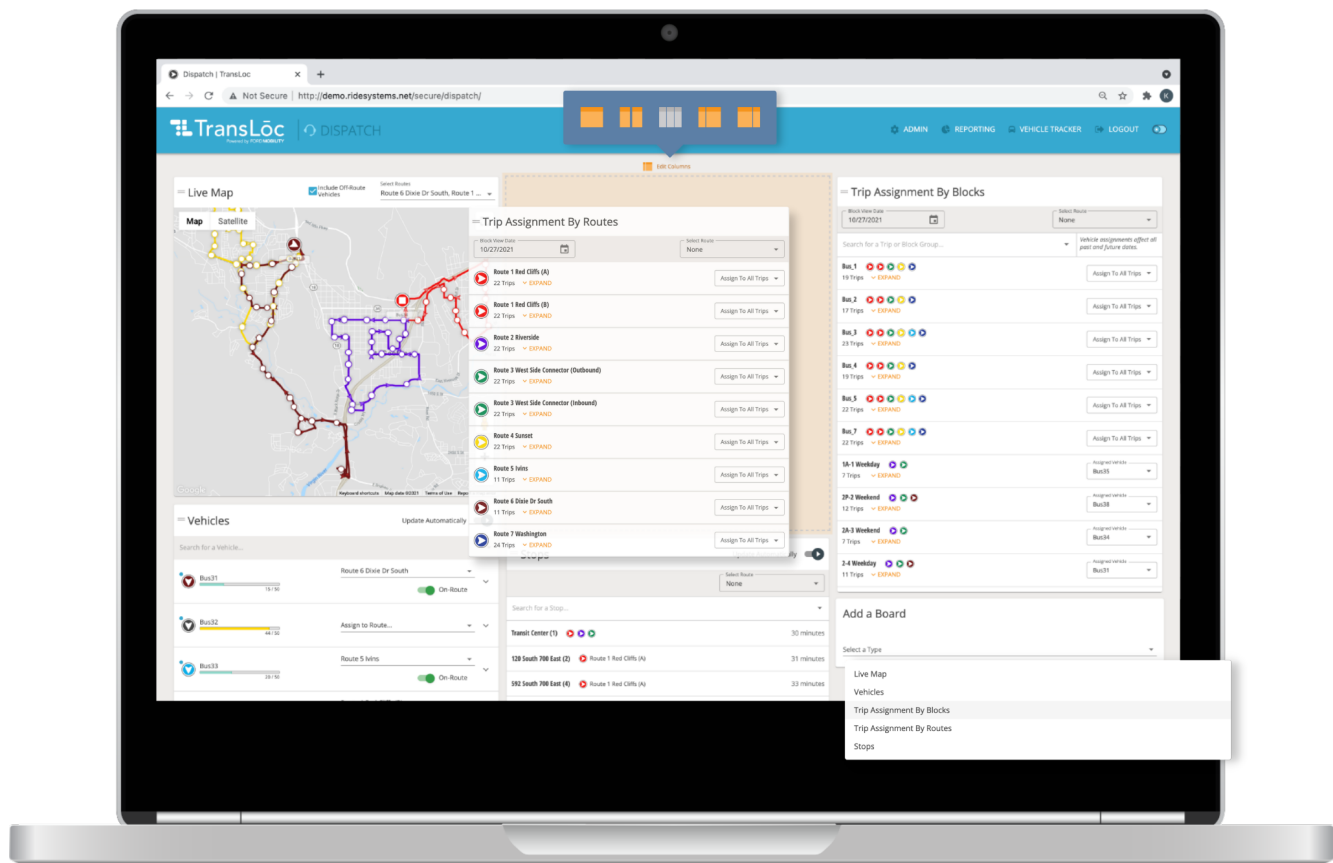
#### 4. Admin & Dispatch Dashboard & Modules

**The TransLoc Administrator and Dispatcher Dashboard:** Users can access an administrative portal (front-end) and GPSGate/Vehicle Tracking interface (back-end). Users can assign vehicles to any route within the front-end portal and view more granular vehicle fleet data and status, including historical playbacks within the back-end dashboard. Through the unique set-up that TransLoc has developed using modules (custom automatic saved layout for each user), clients will have customizable display access to various modules that offer an abundance of fleet management information and features. Other functionalities provided include levels of access for different staff, with users having access to a solution that allows GTFS exporting and much more.

## Administrative & Dispatch Dashboard

TransLoc has developed an **administrative & dispatching dashboard** (front-end) and **GPSGate/Vehicle Tracking interface** (back-end) to make the task of managing and analyzing the transit system even easier for administrators and dispatchers. The application is web-based and available to all users as a service (SaaS application). No additional resources are required to access the application, other than a standard web browser. Users will have their unique username and password to login to the system. There is no limit to the number of admin/dispatcher logins.

The administrative & dispatching dashboard tracks vehicles in real-time with an auto refresh rate of every 3-5 seconds. The modular dashboard easily allows dispatchers to keep track of the fleet status, monitor on-time performance, and make quick route change assignments to vehicles. Next stop ETAs are displayed, and off-route vehicles are clearly visible as well. The modular **display settings are saved for each user automatically**; it's set-up to meet each user's preferences and needs. This means one device used by multiple users who have a preferred layout will have them saved to their accounts.



*Administrative/Dispatcher modular front-end dashboard*

Through the administrative dashboard, users can access the **back end GPSGate/Vehicle Tracker** interface. Users use the Vehicle Tracker dashboard to view granular data regarding the vehicle fleet being tracked, including access to all vehicle status and location information recorded (**GPS historical tracks/replay feature**). This tracking interface is a useful **tool for troubleshooting**.

1. Drop pin in locations for address, search map coordinates, and use filters to view only specific needs

2. Track who performed changes

3. View vehicles online and general overall fleet status

4. Filter map by vehicles

5. Search and view replays of vehicle activity for accountability by filtering by specific date/time

6. TransLoc can troubleshoot and view past work logs

*Vehicle Tracker Portal (back-end) is used to view vehicle status and trip information in more detail.*

TransLoc's maps are powered by Google Maps and include the most updated map details possible. Users can zoom in and out, scroll, and pan in order to see an overview of the map, a street level view, and everything in between. The map may be refreshed at any time by the user.

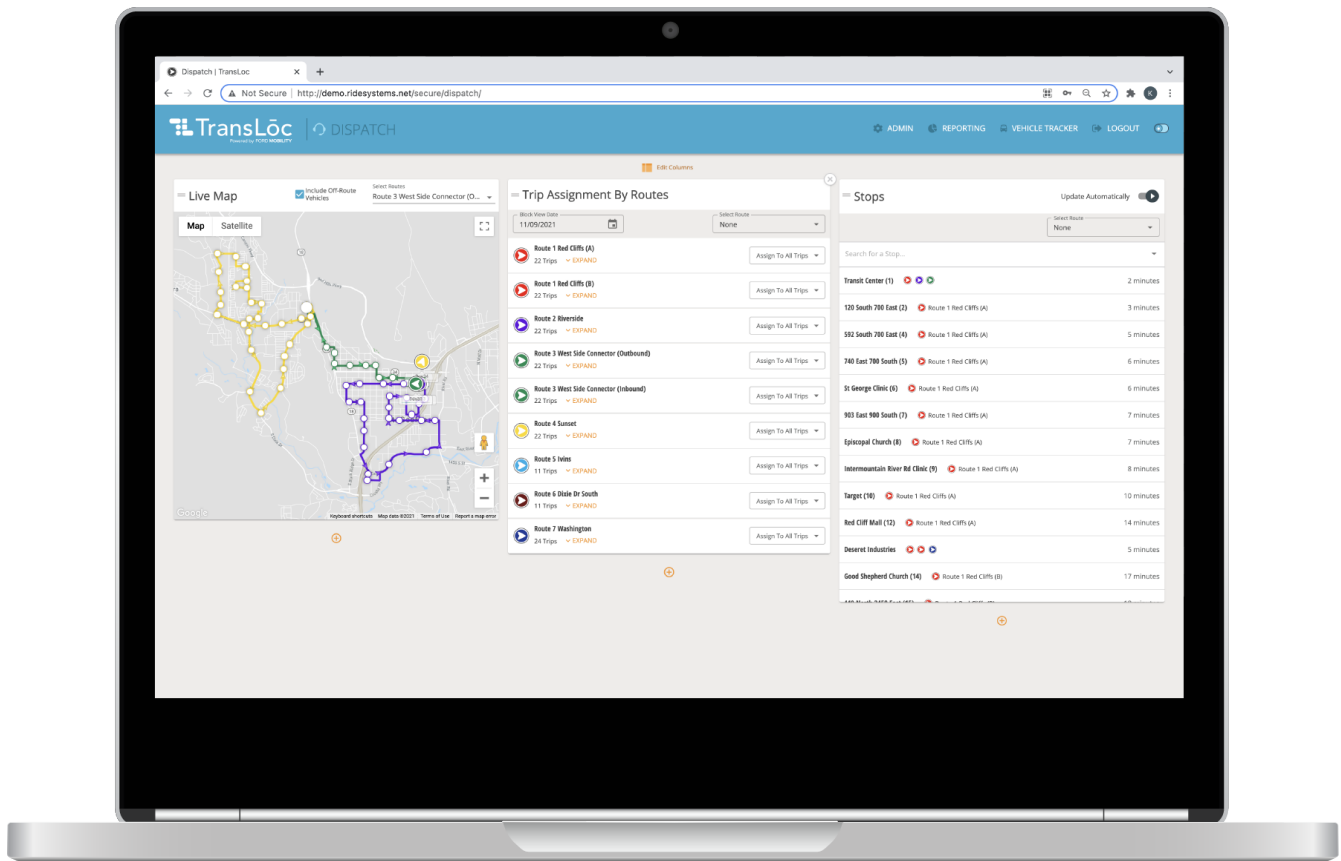
**The vehicle tracker site is password protected so only administrators can access vehicle and route information. This view is used for more comprehensive detail related to your fleet, including vehicle history and GPS status.**



- View vehicle status (speed, idle time, distance, etc.)
- Manage GPS hardware status
- Track geo-fenced zones
- Replay vehicle routes driven
- Generate multiple reports

## Modules: Customizing the Admin & Dispatch Dashboard

TransLoc provides Dispatchers and Administrators the ability to configure the entire look of the dashboard display through modules. The goal of the TransLoc modular dashboard is to allow users to set up their own personalized experience. This means that users can add or eliminate any interfaces depending on the priority view desired, with unique modules providing specific information such as real-time vehicle capacity information, on-time performance and view information based on block, routes and stops. Offering the user the ability to **only see what's important to them**. Each module can be changed in size and configured to one's preferences. This ensures that different roles using this platform can easily view and access the tools they need within a single interface. **Settings are saved based on the logged-in user's custom set-up**. Our goal is to build on this flexible and strong foundation to continue offering more features through new modules without drastically changing what is familiar to each user's responsibilities, tasks, and preferences.



Example default module set-up provides a view of vehicles assigned, live map and additional features.

TransLoc's **modules provide custom layouts** and the ability to choose your display mode. This mode of presenting information allows TransLoc to increase the ways and type of information displayed. TransLoc will continually work to add new features and capabilities through new modules. Our goal is to offer more options and functionality for dispatchers and administrators on what to view and how. **Note: The modular dashboard has many features and configurations that will vary for each client's set-up and specific needs, such as if schedules or APCs are used.**

### Unique Module Breakdown

Below is an overview of existing modules that make up the Administrative/Dispatch Dashboard:

**Live Map Module:** core component of the fixed route CAD system for monitoring all vehicles in the fleet that are pinging GPS locations. This tool is key for seeing the last reported location of all vehicles. Users can also determine vehicles that are in service, are not or should be. Vehicles assigned to routes show the color for that route, ETAs and vehicle capacity (APC required) in addition to more information.

The screenshot shows a 'Live Map' interface with several key features highlighted by numbered callouts:

- 1:** 'Include Off-Route Vehicles' toggle in the top right.
- 2:** 'Select Routes' dropdown menu showing route selection options.
- 3:** 'Map' and 'Satellite' view toggles in the top left.
- 4:** Full-screen mode icon in the top right.
- 5:** Vehicle information popup for 'Bus35' showing capacity, company, and next stop ETAs.
- 6:** Vehicle status indicators (green and red circles) on the map.
- 7:** Pegman icon for street view in the bottom right.

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1. Toggle to view all vehicles off-route, such as those parked in a garage or on break (the functionality shows the last location of the vehicle when ignition was on)
2. Users can select and filter routes to view on the live map
3. Map and satellite views along with terrain and label operations for better area orientation
4. Enable full-screen mode
5. Select moving vehicles on the map for additional information: vehicle name, real-time vehicle capacity (if utilizing an APC solution), and next stop ETAs
6. OTP status to see if vehicles are 'EARLY' (green), 'ON-TIME' (green), or 'LATE' (red)
7. Access street view

Feature	Description
<b>Map Functions</b>	Powered by Google. Standard functions include map and satellite views along with terrain and label operations for better area orientation, full screen mode, and pegman for accessing street view.
<b>Route Information</b>	Available stops, route direction and different colors for each route and OTP status to see if vehicles are 'EARLY', 'ON TIME', or 'LATE'.
<b>Off-Route Information</b>	Toggle to view all vehicles off-route, such as the parked vehicle location that may be in a garage or on break. The functionality shows the last location of the vehicle when ignition was on.
<b>Vehicle Information &amp; Selection</b>	Vehicles assigned to routes in service display by default on the Live Map. The module header includes a toggle to view vehicles not assigned to any active routes. <b>Update rate:</b> Update rates can be as low as 3-5 seconds and as high as 60+ seconds with third party hardware integrations. <i>Update rate for vehicle icons varies and is dependent upon the installed GPS hardware and network connection.</i> * Vehicles moving on the map can be selected for <b>additional information:</b> vehicle name, real-time vehicle capacity (if utilizing an APC solution), and the ETAs for the next two stops the vehicle will service.

**Vehicles Module:** The vehicles module enables users to assign vehicles to routes. Users can track and monitor select vehicles for ETAs, on time performance and vehicle capacity quickly. Module header allows users to search and filter for all vehicles, whether in service or not.

The screenshot shows the 'Vehicles' module interface. At the top, there is a search bar labeled 'Search for a Vehicle...'. Below it, a list of vehicles is displayed, each with a status icon, a route name, a progress bar showing current load vs. capacity, and an 'On-Route' toggle button. Callout 1 points to the search bar. Callout 2 points to the 'Assign to Route...' dropdown menu for Bus37, which is open and shows a list of routes. Callout 3 points to the 'On-Route' toggle button for Bus38.

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1. Header allows users to search and filter for vehicles for a custom view
2. Enables users to assign vehicles to routes.
3. "On-Route" toggle button marks if a vehicle should be considered in service or not, and if ETAs are calculated for it

Feature	Description
<b>All Vehicles Presented</b>	The Vehicles module displays a list of all agency vehicles that have been added to the CAD system, <b>whether they are in service or not.</b>
<b>Vehicle Information</b>	Each row in the module includes information and functions for each vehicle: <ul style="list-style-type: none"> <li>• Vehicle name</li> <li>• A vehicle icon that is either black to represent out of service or colored to match its respective route assignment</li> <li>• Current vehicle load based on the designated capacity. The agency must also be utilizing an APC system.</li> </ul>
<b>Assigning Vehicles</b>	Agencies that do not have schedules for their routes will make vehicle assignments from the Vehicles module. This is possible using the route selection drop down. Set vehicles as <b>'On-Route'</b> or <b>'Delayed'</b> in the event a vehicle in service should no longer be considered for picking up riders (i.e., a vehicle is on break).
<b>On-Time Performance Status</b>	An on-time performance (OTP) status may be displayed for vehicles in service on a route with a schedule. <i>*Systems not using schedules will not see OTP statuses since there are no schedules to measure OTP against.</i>



**Trip Assignment by Blocks Module:** The Trip Assignment By Blocks module helps transit agencies with complex schedules make easy work of assigning vehicles to block work and adjusting as needed.

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1. 'Block View Date' enables users to view the trip or blocks to be serviced for a given day and make assignments accordingly
2. Search and filter for trip or block groups
3. Vehicle trip assignment dropdown
4. Each row displays the block group name, all corresponding interlined routes, number of trips for the current day
5. Expand block groups to display individual trips and run times; additionally, users can assign vehicles to individual trips

Feature	Description
<b>Calendar</b>	Set the calendar to view and display the corresponding blocks of work with schedules to run on the given service day.
<b>Block Information</b>	Each row represents a single block, and includes the name, number of trips, and color indicators for each route included in the block for systems interlining. Blocks can be expanded to view more details and assignments.
<b>Assign Vehicles to a Block</b>	Vehicles can easily and quickly be assigned to an entire block by selecting the dropdown list on the right side of the module.
<b>Expand Block for More Information</b>	Expanded blocks lay out each trip, by name, with that block, their run times (first and last timestamp), and their route.
<b>Assign Vehicles to Trips within a Block</b>	Users may assign vehicles to specific trips within a block (i.e. in the event a vehicle must be removed from service mid-schedule). Option to override whole block or individual trips within the block assignment.
<b>Search &amp; Filter</b>	The module also allows for quick block and trip filtering to find specific assignments if they need to be adjusted.

**Trip Assignment by Routes Module:** This module displays the scheduled trips by route to be serviced for a given day and quickly enables Dispatchers to assign vehicles where and when needed. The module can be filtered by a single route in order to find desired assignments more quickly.

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1. Enables users to view the routes to be serviced for a given day
2. A dropdown for the vehicle assignment
3. Each row displays the route name, corresponding route color, number of trips for the current service day
4. Expand routes to display individual trips and run times; additionally, users can assign vehicles to individual trips, not just whole route schedules

Feature	Description
<b>Current Day Information</b>	Each row displays the route name, corresponding route color, number of trips for the <b>current service day</b> , a dropdown for the vehicle assignment, and an option to expand the route for more information.
<b>Assign Vehicles</b>	Expanded routes display the individual trips in rows and their run times. Additionally, users can <b>assign vehicles to individual trips</b> , not just whole routes, in the event a vehicle needs to service a portion of the route's schedules and other vehicles complete the remaining portion.
<b>'Block View Date'</b>	The 'Block View Date' enables users to view the routes to be serviced for a given day. <b>NOTE:</b> if a route's calendar schedule extends into the future, and a user makes a vehicle assignment change for that route, it will update the real time vehicle assignment for that route.

**Stops Module:** The stops module is a means for users to track a vehicle servicing select stops. These could be stops for select routes, blocks, or points of interest such as transit centers. This information helps inform users on capacity loads and vehicle on time status to monitor and manage the fixed route service for the day, including for interlined assignments.

The screenshot shows the 'Stops' module interface. At the top, there is a search bar (1) and a 'Select Route' dropdown menu (2) currently set to 'None'. Below this is a list of stops. The first stop is 'Transit Center' with an ETA of 14 minutes. The second stop is '120 South 700 East (3)' with an ETA of 15 minutes. Below this stop, a detailed view is shown for '120 South 700 East (2)'. This view lists four vehicles: 'Bus32 Route 1 Red Cliffs (A)' with a capacity of 44/50 and an ETA of 31 minutes (ON TIME), another 'Bus32 Route 1 Red Cliffs (A)' with a capacity of 44/50 and an ETA of 71 minutes (ON TIME), 'Bus34 Route 1 Red Cliffs (A)' with a capacity of 5/50 and an ETA of 111 minutes (ON TIME), and another 'Bus32 Route 1 Red Cliffs (A)' with a capacity of 44/50 and an ETA of 151 minutes (ON TIME). Other stops in the list include '592 South 700 East (4)' (17 minutes), '740 East 700 South (5)' (18 minutes), 'St George Clinic (6)' (18 minutes), and '903 East 900 South (7)' (19 minutes). At the bottom of the screenshot, it says 'CONFIDENTIAL & PROPRIETARY - PATENT PENDING'.

1. Header allows users to search and filter select stops or by route for a customized view
2. View interlined routes that pass through a stop
3. Each stop shows all routes that pass through it
4. ETA for the next vehicle is shown for each stop
5. Vehicle on time performance status shown if 'EARLY', 'ON-TIME', or 'LATE'

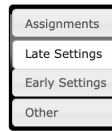
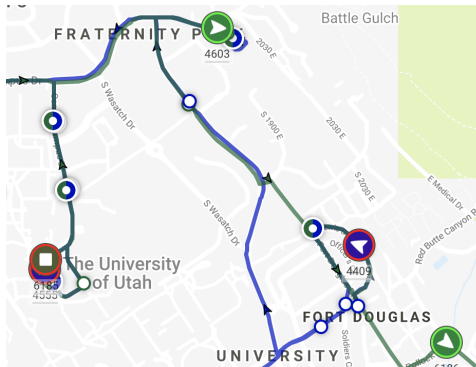
Feature	Description
<b>View All Stops</b>	All stops accounted for in the system will be visible in the Stops module when it is added to the Dispatch Panel.
<b>Search/filtering</b>	Multiple stops can be searched for directly as well as filtering by route, trip, or block.
<b>Overview Stop Information</b>	Stops registering in the user interface display the stop name, route(s) it is associated with, and the ETA for the next vehicle servicing the stop.
<b>Individual Stop Information</b>	A selected stop displays each vehicle and its route assignment along with the vehicle capacity (if applicable-APC required) and the ETA and OTP status for the vehicle.
<b>On-Time Performance (OTP)</b>	OTP status informs users if a vehicle is running its schedule 'EARLY', 'ON TIME', or 'LATE'. These statuses are determined by the configurable site thresholds for minimum and maximum. (i.e. a system has a minimum 1 min. and maximum 5 min. threshold.)

## Vehicle Scheduling and Assignment Capabilities

TransLoc builds all of the static feed data, which includes routes, shapes and schedules. The route schedules allow customers to assign vehicles. The system holds on to the assignments, but also allows for in advanced and real-time reassignment of vehicles to different routes/blocks. All past assignments can be seen in the reports provided as well.

## Visual On-Time Performance Indicators

The front-end dashboard allows agencies to view on-time performance in real-time on all live vehicles, which are identified and color coded. Triggers that define when each color is presented (late and early) are configurable by Administrators, in addition to other settings.



### Late Settings

Minutes for Late	<input type="text" value="5"/>
Highlight Late Times	<input checked="" type="checkbox"/>
Late Time Highlight Color	<input type="text" value="FF0000"/>
Highlight Late Vehicles	<input checked="" type="checkbox"/>
Late Vehicle Highlight Color	<input type="text" value="FF0000"/>

## Route Monitoring & Interlining

Vehicles can be assigned by dispatch or self-assigned by the driver upon login through the driver interface to run blocks, which specify a series of trips for that vehicle throughout the service day. **Those trips can be frequencies of the same route or interlined trips**, and our platform will monitor the vehicle throughout the course of each trip. Once a vehicle reaches the final stop of a particular trip, our platform will automatically update the vehicle’s assigned trip (for public display and reporting purposes) to the next trip in the run-block series.

## Driver Assignment Capability Options

TransLoc offers Vehicle Assignment Capability, giving dispatchers the ability to assign a driver to a specific run, route, or schedule. Administrators are then able to generate On-Time Performance reports by driver, vehicle, route, or stop. If implemented with an Automated Passenger Counter, this will also allow customers (and riders) to see the ridership of each vehicle live.

## Vehicle Tracker Dashboard: Tracking Vehicle Fleet Status

The focal point for vehicle management operations is the **Vehicle Panel**, located in GPSGate/Vehicle Tracker, **containing the list of vehicles**—here you see the vehicles in the current view. In the default view, the panels for Vehicles are to the right of the map, with filtered status and vehicle information. Above the Vehicle panel, there is a “Search” function that allows you to make free-text searches for your vehicles by Login ID or Vehicle name.

Vehicle Panel allows you to filter vehicles by a variety of points

Name	Last seen	Track	Status	Speed
4410	11:15:39 AM	<input type="checkbox"/>	■	-
4555	1:03:37 PM	<input type="checkbox"/>	■	0.0 mph
4603	5/13/2020	<input type="checkbox"/>	■	-
4604	12:57:38 PM	<input type="checkbox"/>	■	0.0 mph
4607a	12:54:58 PM	<input type="checkbox"/>	➔	0.6 mph
4618	4/27/2020	<input type="checkbox"/>	■	-

- Name
- Username
- Surname
- Address
- Last seen
- Track
- Status
- Last connection
- Protocol
- Speed
- Description
- Driver ID
- Email
- Phone Number
- IMEI
- Odometer
- Open events
- Force fit columns

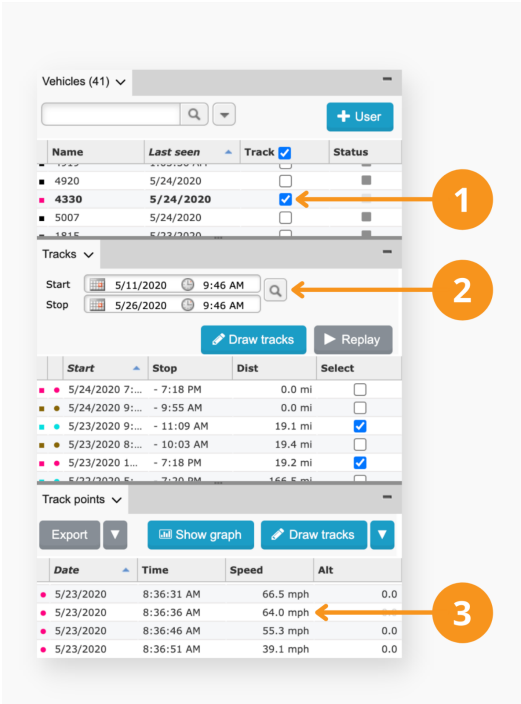
Administrators can **narrow down their search** further based on different search criteria. This is done by expanding the Advanced filters options found on top of the Track points panel (Image example below). Users have the option of Time, Speed, Altitude, and some customizable variables. Below the search fields users have a drop-down “Filter based on” list.

**Exporting from GPSTrack (Back-end Data)**

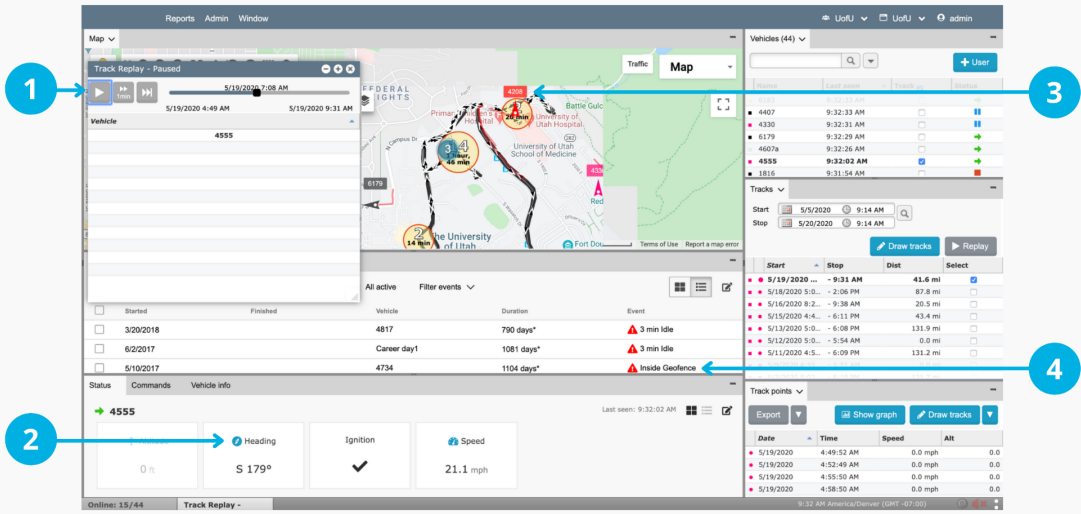
Exporting data from the map view page is done by clicking on the “Export” button in the Track points list. You export the tracks that are listed in the Track points list and shown on the map if you have drawn them. All time stamps are exported in UTC (Universal Time Coordinated) format. With the split button menu next to the Export button, you can select either KML or CSV as the export format.

**Events and Geofence Panel**

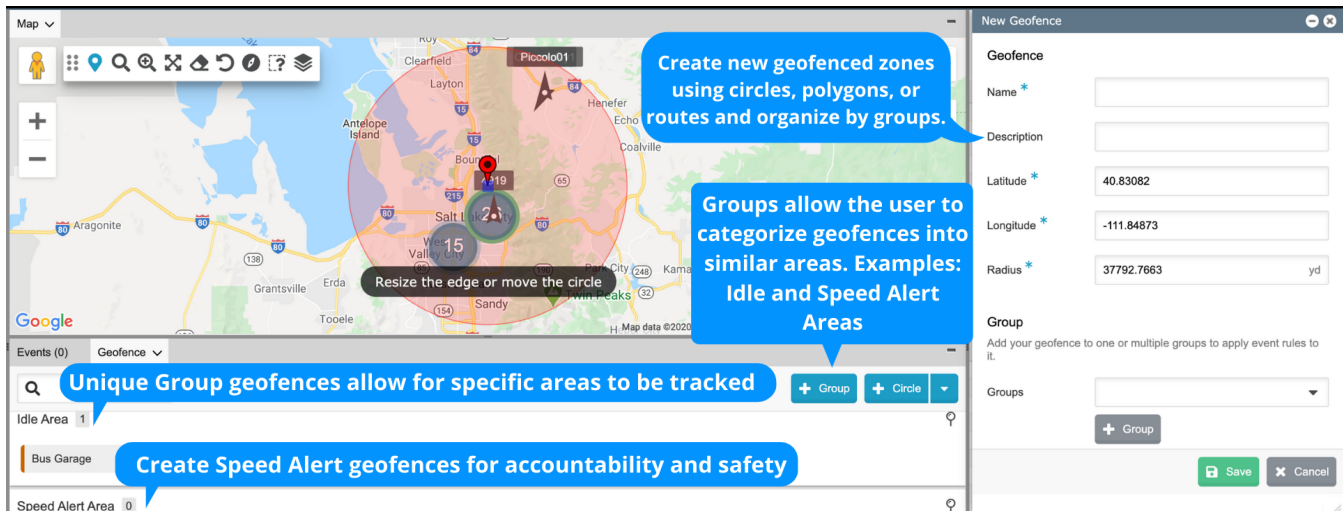
The Events tab shows incoming alarms from your devices. In the Events tab header, you can see if there are active events/alarms, which are triggered by Event Rules set up. You can expand an event with the arrow on the left to get more information. This feature may be disabled by the administrator. **Some events include: ignition on/off, speed zone violations, and geofence/off-route, early departures and late departures changes.** Users can receive reports on any of these events and be sent via email to a client or Project Manager.



1. Select a vehicle to track
2. Narrow down by date and time
3. View past track points



1. View vehicle historical playback through with a replay tool for all vehicle data transmissions
2. View vehicle status at specific points in the past, such as speed, ignition and heading
3. System shows how long and where vehicles sat idle. Example: idle in 2 zones for 26 minutes
4. View notable events the vehicle underwent such as when it became idle or passed through a geofence area



## Automating Email Alerts for Event Rules

Once a unique Event Rule is created depending on the need customers have, notification settings can be adjusted for when the event occurs. Event rules include alerts for vehicle idle thresholds, speeding, geofence/off-route, early departures, and late departures.

### ▼ 5. Notifications

Notifications can both be shown in the application and sent over email and SMS to multiple recipients. Use the "+" or "trash can" buttons to add/remove notifications.

Add notification ▼

The TransLōc software will alert the agency, via email, in certain situations if the system is not functioning as intended.

#### The system alerts when the following occurs:

- There is an active block with no bus assigned
- There is a bus tracking that is not assigned to a block
- There are counts coming into the system from a bus that is not assigned
- There is a bus assigned to an active block that is not tracking

The system also allows you to set up special alerts such as that can be viewed in our vehicle tracker software:

- A bus is exceeding a desired speed in a geographical location
- A bus has entered or left a geographical location

## System Interfaces as per User Privileges

TransLōc offers varying levels of privileges:

- **View Only** – This allows them to see the secure site, they can view assignments and blocks. They can see if buses are running on-time or falling behind. This privilege does not allow any changes to the site, only the ability to log in and view.
- **Assign Vehicles** – This allows all rights above plus they can make changes to vehicle assignments.
- **Admin** – Has all the rights of the Assign Vehicle, plus has all rights to reporting and scheduling.

## Individual User-Access

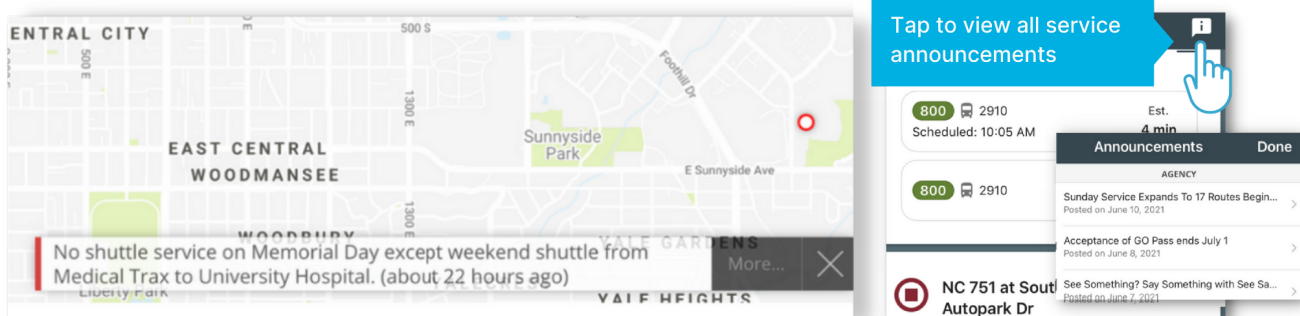
TransLōc is able to provide the capability and configurability of the interface/dashboard for each unique-user log-in. Each user is provided with different log-in rights and their own user-rights to access the system. From there, each user can make changes as needed, such as using a preferred map view (standard or satellite) and highlighting or saving any routes being monitored or in view.

## Edit Vehicle Information

The primary supported fields are: Customized vehicle ID, Make, Model, Capacity, Placard, License Plate, VIN, and Year. TransLoc's system does not connect vehicles to drivers. The items listed and customizable are fixed to vehicle information, such as what is listed by TransLoc.

## Informing Riders

Administrators can instantly send out announcements and notifications alerting riders to special events, emergency changes, and much more. Additional service announcements can be directly **posted in** the rider-facing live map both on the **browser** and within the **mobile app** (image example below). Riders can view service changes, outages, and announcements for the overall route and even individual stops on the mobile app. This message can be expanded to provide more information and link to the agency website. Dispatch can also mark vehicles as paused or on break, which takes them off the map to avoid confusion for riders in case of any service disruptions.



## On-Route Vehicle Not Relaying GPS Data

If the assigned vehicle is not sending any GPS signal it will not be visible on the dispatch map. Dispatchers/administrators will be able to view the vehicle and the last location with a timestamp via the GPSGate hardware on board.

## Heartbeat Data Record for Powered Off Vehicle

When a vehicle is turned off, the GPS device does not immediately deactivate, and still sends data for a set amount of time using the vehicle battery (so sending "heartbeat" updates). The exception reporting captures if a vehicle stops reporting when it should be sending us data, so we can comply with this.

## Vehicle Location Display

The TransLoc administrative backend will display a color-coded on-time or early indication for the administrator and dispatchers to be able to quickly assess the fleet with a glance. On the passenger-facing interface, an ETA is displayed based on where each vehicle is located in conjunction with the scheduled time.

## Rider Interfaces: Public Website and Mobile App

TransLoc offers multiple rider customer interfaces for viewing transit data, including a live public map, a mobile app, and display signage feeds (if desired). To provide a consistent experience, **many features are the same across both the TransLoc App and public website map**. The live public map shows the current location of all vehicles on route. The frequency of reporting real-time vehicle location shows an auto refresh rate of **every 3-5 seconds**. Route and vehicle icons are color-coordinated for easy identification and the user can choose to view just one or multiple routes at the same time. *If the service is implemented with Automated Passenger Counters*, this will also allow riders to see the ridership of each vehicle live.

## Public Website Overview

The map website has a **custom URL name with agency branding** and offers free access to the public. The public map also features an alert message window that administrators can use to display messages they wish the users to read. Users can click on routes, vehicles, or stops to get **real-time ETA or scheduled time of arrival and next bus information**. Each individual route can have a **link or PDF document** (also available in the mobile application) added for riders to learn more about agency routes and services. The website can be used with an existing domain using a subdomain or iframe.

The screenshot shows the 'BUS TRACKER' interface. On the left is a 'ROUTES' sidebar with a search bar (1), a list of routes with a play button (2), and a 'MORE ROUTE INFO' section (5). On the right is a 'MENU' sidebar with options like 'Take a Tour', 'Live Map', 'Alerts', and 'Contact us' (3, 4). The central map shows a blue route with stops and a play button (6). A notification at the bottom reads: 'ROUTE 7 DETOUR STARTING 3/12/20 - DUE TO CONSTRUCTION ON BEHRENS CIRCLE ROUTE 7 WILL DETOUR FROM HOGAN BN A'.

1. Add logo here
2. Click a stop on the map to show more information, such as arrival times
3. Highlight and link directly to special shuttle routes or the transit provider website
4. Choose to send feedback to the transit provider or the app developer
5. Riders can access PDFs or linked websites for more more information
6. Click the Route Button to toggle the route on the map

The **sidebar to the left** of the dashboard allows riders to view the details of that route. It shows the bus number, the bus capacity, as well as upcoming stops with a correlating ETA or can be configured to show scheduled arrival times. The **sidebar to the right** provides riders with additional links, which can be customized for each agency. At the **bottom**, riders can read service information, which is updated by the agency.

### Additional capabilities to highlight from the public website include:

- 'Take a Tour' feature helps users better understand all capabilities of the live map
- 'Contact Us' button (for the agency or TransLoc)
- Ability to "Favorite" routes and stops.
- URL/Refreshing a page saves the highlighted routes and settings on a page.
- Bookmarking allows users to save exactly the settings toggled, which can provide easy access to specific routes or stops when revisiting the website.
- Beyond the route and stop information available on the left side of the dashboard, clicking on a vehicle shows its ETA information for its next 2 stops directly.
- Announcements can be expanded on to view all the posted information by the agency.
- 'Find Me' button provides users with their updated location within the larger map.



**Administrator: Toggleable Public Website Settings**

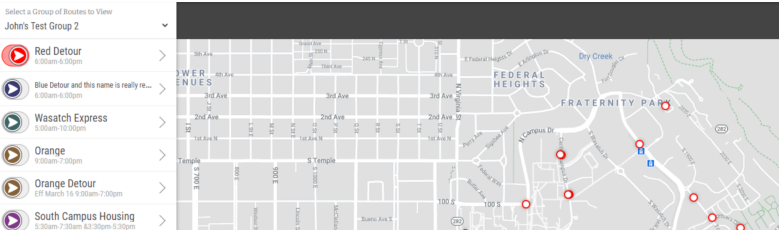
TransLōc provides administrators and dispatchers the ability to toggle through the backend certain features that affect how the default public website live map looks and presents.

**Route Settings**

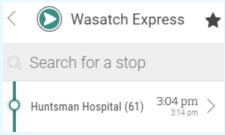
**Is Visible on Map** This setting will remove a route from the live map, even if it is currently running. Admins will still be able to view the route on the dispatch page.

**Show Route Arrows** On the route level, “Show Route Arrows” will toggle the route arrow drawings for directionality on the map.

**Hide Route Line** On the route level, there is a setting “Show Lines” where if turned off, the live map will not show the lines of the route. The stops will still show on the map.



**Show Texting Key** If a stop has a “Texting Key” it will be displayed in parentheses at the end of the stop name on the menu. Example -



**Stop Settings**

**Show Defaulted On Map** If toggled off, it removes the stop from the route menu list and live map.

**Route Groups** Clients can toggle routes using the “Use Route Groups” selection, then enter a description for the group selection. This will show routes organized by groups on the left side of the public live map.

**Map Settings**

**Show Alert Count (Message Counts)** Shows the number of alerts (public announcements) available to be read in the live map relating to the service.



**Password Protect Main Map** If this setting is toggled, then the public facing map will require a password to load and view.

### Customize Public Site for Riders

TransLoc offers clients the ability to customize the rider public web map. Clients can have a live map that follows agency branding needs and offers riders links other resources outside of the custom URL.

The screenshot displays a web interface for a transit agency. On the left, a sidebar lists routes with color-coded icons: Blue Detour (5:00am-6:00pm), Primary Trax (N) (15) (9 mins, 23 mins), Orange (6:00am-7:00pm), Special Event, ADA, Circulator Route (5:00am-6:00pm), HCI-Institute, Guardsman Direct (5:45am-10:00pm), and BSB-U Hospital (8:00am-6:45pm). The main area features a 'Live Tracker' map of a city with various colored routes overlaid. A top navigation bar includes a date (May 19, 2020) and a social media link. A right sidebar contains a search bar, resource links for the App Store and Google Play, and social media icons. A feedback form is overlaid on the bottom right, titled 'We're glad you're here' and asking for an email address to sign in and leave feedback.

1. Agencies can customize header text, such as adding agency or service name
2. Add Logo here
3. Custom Resource Links Here
4. Add route PDF resource links and choose between different ETA types
5. Choose to send feedback to the transit provider or the app developer
6. Choose and customize all route colors

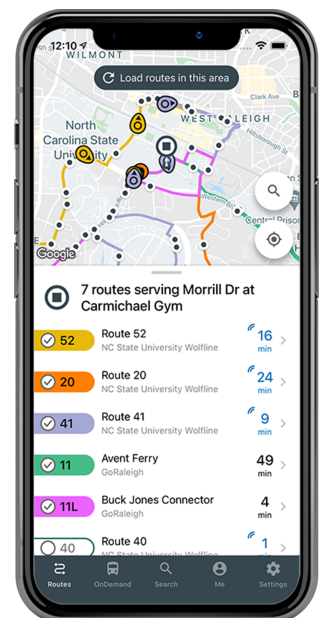
### TransLoc Mobile Application

The TransLoc app offers native mobile applications for **iOS** and **Android** and is the most popular way for users to access GPS transit information. The app is available in **Spanish and Simplified Chinese** with **WCAG 2.0 AA compliance** to meet all mobile accessibility needs. It includes a **Trip Planner** in addition to a “Closest Stop” feature for riders to be able to easily locate services. The app was built with the goal to make it easy to ride the bus. Through the app and rider webpage, users have access to vehicle and route locations, estimated arrival times, important announcements, with the ability to view multiple routes simultaneously based on the user’s location. The TransLoc App has **Zero-Delay-Tracking**.

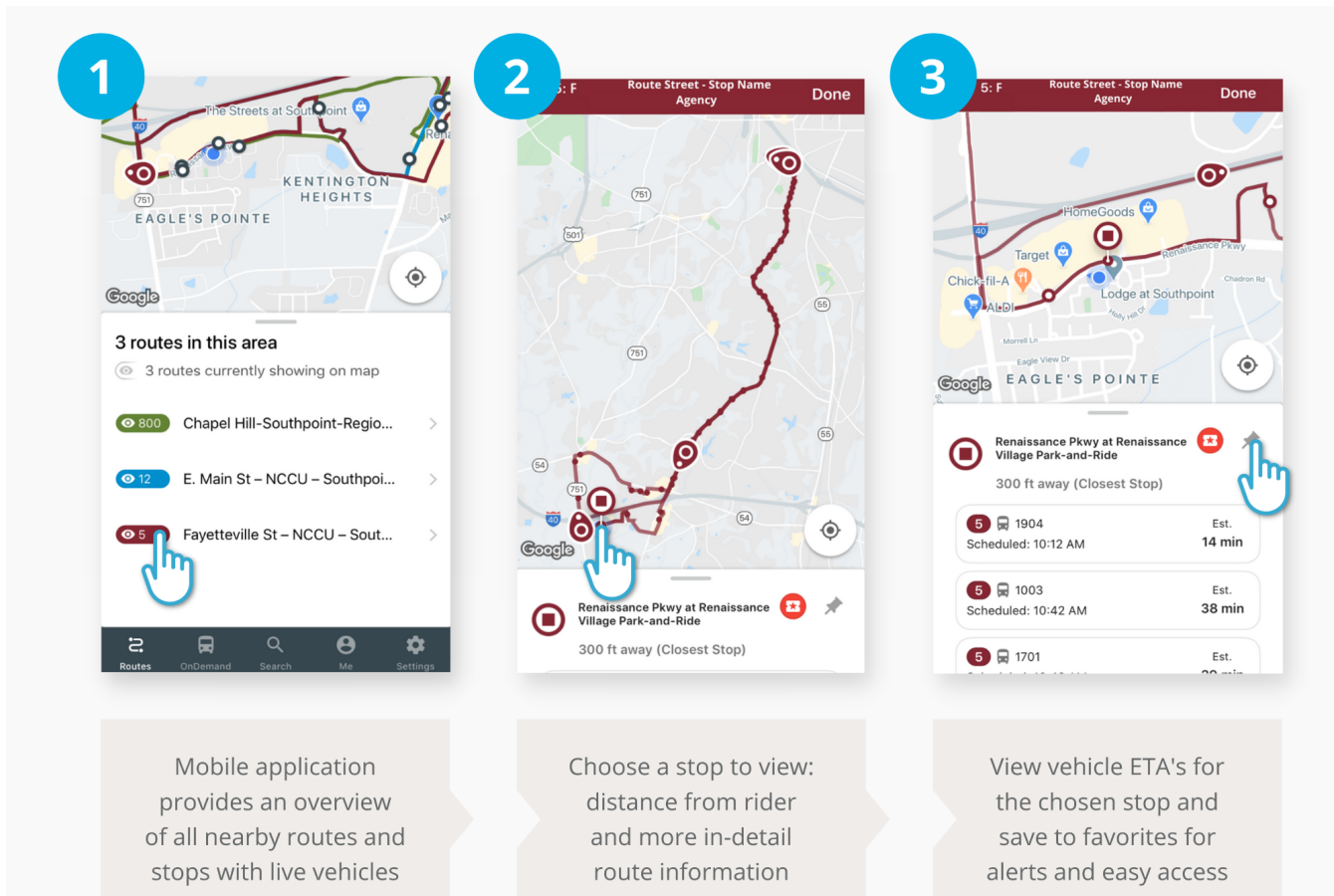
- The app is built as a multi-modal solution, so it also has the **option to add on-demand** capabilities.

### ETA Algorithm, Finding Stops & Service Information

The predictive arrival algorithm uses scheduled data and bus location as a basis for estimations, and weighs the current situation into near-term predictions, along with historical data. The algorithm **updates the estimated time of arrival (ETA) every 3 to**



**5 seconds** and the bus GPS device checks in. Users can click on or search for a route and stop to easily view the upcoming ETAs for each stop and route information. **PDF or URL schedules** can be added to routes within the “list view” for support information.



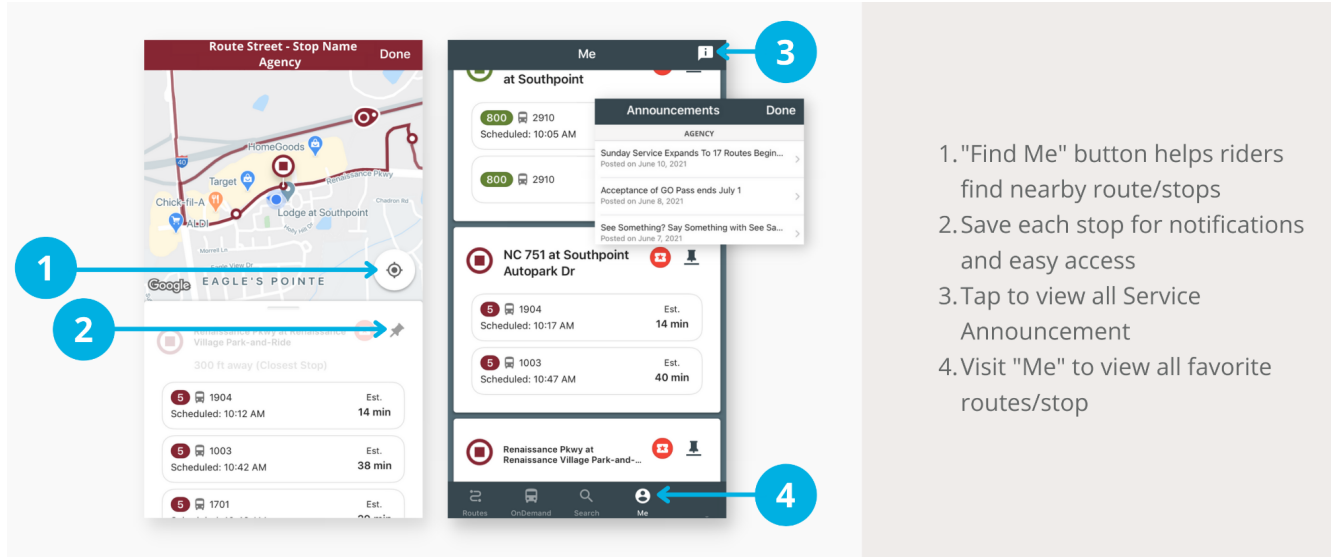
### Arrival Notifications & SMS Text

- Riders can choose a route or stop combination in order to set-up alerts notifying them of certain time announcements before a bus on the route reaches the desired stop. **Arrival notifications** notify riders once a bus is within a certain time threshold from the stop, so riders can better prepare when their ride arrives. Riders are able to add arrival notifications to their favorite stops and adjust when they want to receive notifications about bus location (5 minutes away from stop, 10 minutes away, etc.). Once riders have chosen their notification timing preference, they will receive a **push notification** for their favorite stop based on the time notifications setup and mobile permissions.
- **SMS Text capability is available.** TransLōc offers a text system which allows users to **place a text to 41411 and a stop ID** and receive a “next scheduled” stop time for a specific stop arrival response.
  - **How it works:** a user enters the stop Id and texting key to receive an ETA. For example, if for Agency A the rider has the texting key of “BusA” and the stop id of “21” they would text BusA 21 to 41411 and it would text back the ETA for that stop.
    - Agencies can assign stop\_ids or TransLōc can assign it for them.

### Subscribe to Routes & Stops

Riders can **subscribe/Favorite** to routes and stops for easy access through the “**Me**” (profile) tab. Tap the icon to favorite a stop and users will see that stop and route prioritized in the app. This allows users to manage the services

they use often and receive notification information such as “Arrival Notifications” and service alerts within the “Me” tab. TransLoc’s goal is to provide an intuitive mobile app that decreases the number of steps it takes to navigate a service and that allows for a customized experience for riders to choose what they want to see and access.



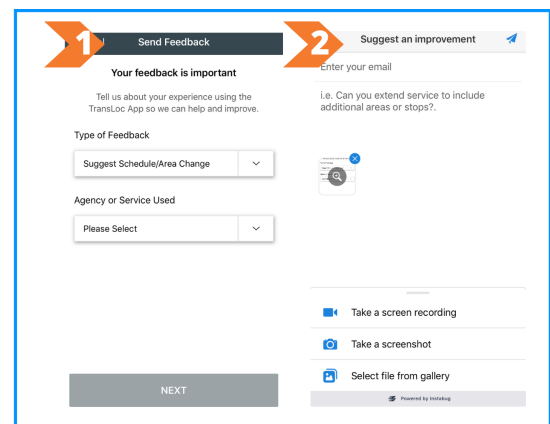
1. "Find Me" button helps riders find nearby route/stops
2. Save each stop for notifications and easy access
3. Tap to view all Service Announcement
4. Visit "Me" to view all favorite routes/stop

### Feedback and Announcement

Riders can send feedback through the mobile app with the capability of choosing feedback type, sending screenshots, videos, and more.

### Multiple Language Availability

TransLoc offers **Spanish** and **Simplified Chinese** as language offerings for users. The language is based on the user’s settings and does not require an app toggle. The app will translate if the user has their device language preference set to another language. WCAG 2.0 AA accessibility compliance extends to include Spanish when using screen readers.



### Closest Stop Visualization & Search Locations

Riders can search for locations in the routes tab or see the **closest stops available near** them. Users have the ability to tap on the map to center the screen on their current location or use the search button on the Routes tab, which allows them to enter an address into a standard text field. The map will automatically move to the specified location and load fixed route transit data for the



### Remember User Preferences

The TransLoc app is able to remember user preferences, such as chosen routes, map position, and zoom level. User route/stop selections will be remembered every time the mobile app is opened, saving users time the next time they use the app. If users favorite routes or stops the app will set map positions and zoom levels appropriately. All favorite/subscribed routes and stops will appear on the “Me” tab for easy access.

## Quality of Life Features

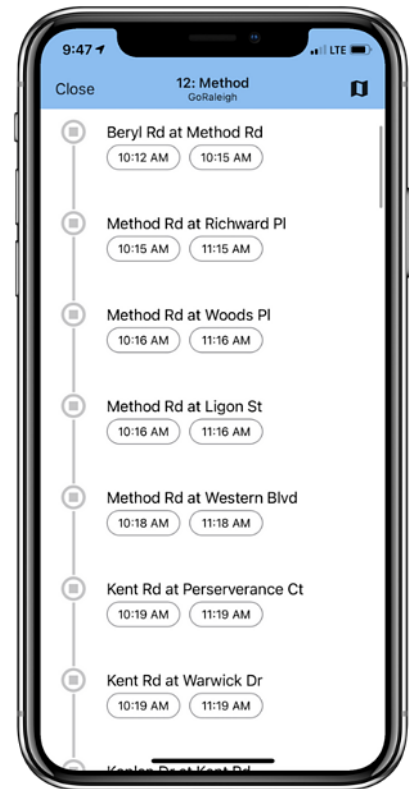
TransLoc app is designed to provide an intuitive experience for riders. These include:

- Routes are sorted in order of priority preferences based on: favorite, closest routes, and routes used often.
- App saves the last tab riders used, even after closing the app.
- Ability to toggle visibility on or off of specific routes and stops.
- **PDF or URL schedules** can be added to routes within the “list view”, which are also available in the public website live map.

## TransLoc App WCAG 2.0 AA Compliant

To ensure the mobile application is accessible beyond just individual features, WCAG 2.0 AA compliance guidelines ensure accessibility is fair and equitable across a wide range of limited mobility users who use the TransLoc app. The TransLoc iOS and Android app is evaluated against Web Content Accessibility Guidelines (WCAG) during development and at major releases. It leverages system accessibility tools built into iOS and Android and currently meets the industry standard of WCAG 2.0 AA adopted by Section 508. Section 508 of the Rehabilitation Act of 1973 uses WCAG 2.0 AA as its requirement. *We can provide a self-assessment where necessary.* **The TransLoc app in compliance with WCAG 2.0 includes:**

- Adapting map content into an accessible list, making it possible for accessibility users to explore routes and stops.
- Enhanced accessibility of interactions, like buttons and gestures, allow riders to more easily navigate to the stops most relevant to them.
- Screen reader capabilities have been fine tuned to provide a more natural language delivery of information and, if enabled, allow a user’s device to read back the information related to routes, stops, arrival times, OnDemand service cards, and more.
- WCAG 2.0 compliance extends to include Spanish, including capabilities with screen readers.



## Route Detail List View (WCAG 2.0 AA Compliance)

As an option, each route shows the entire route and every stop in a list view as an option for users. Riders' phones can read back all the information that is available within the app. This grants the ability for screen-readers to access routes, which makes the mobile application more accessible. If a specific route or stop is under construction or repair, it would be noted within the list view as well.

### Built-In Trip Planner Overview

**1**

Choose a route or address for all trip planning option summaries

**2**

Choose preferred trip plan for instructions to the closest stop, bus route, and trip information

**3**

Follow the steps and view ahead to plan your travel

Riders can easily plan their trips through the app with step-by-step directions for fixed route services. TransLoc’s Trip Planner provides riders with the ability to see ahead of time all the steps it takes to proceed with an entire trip, including connecting routes. Beyond the TransLoc Trip Planner, additional trip planning elements are provided to users including the ability to show riders their top 5 most frequently used addresses and routes.

### Trip Planner: Navigating to a Specific Address

**1**

Tap on the Search tab

**2**

Enter your desired address and, if necessary, change current location and departure time

**3**

Select an option for directions

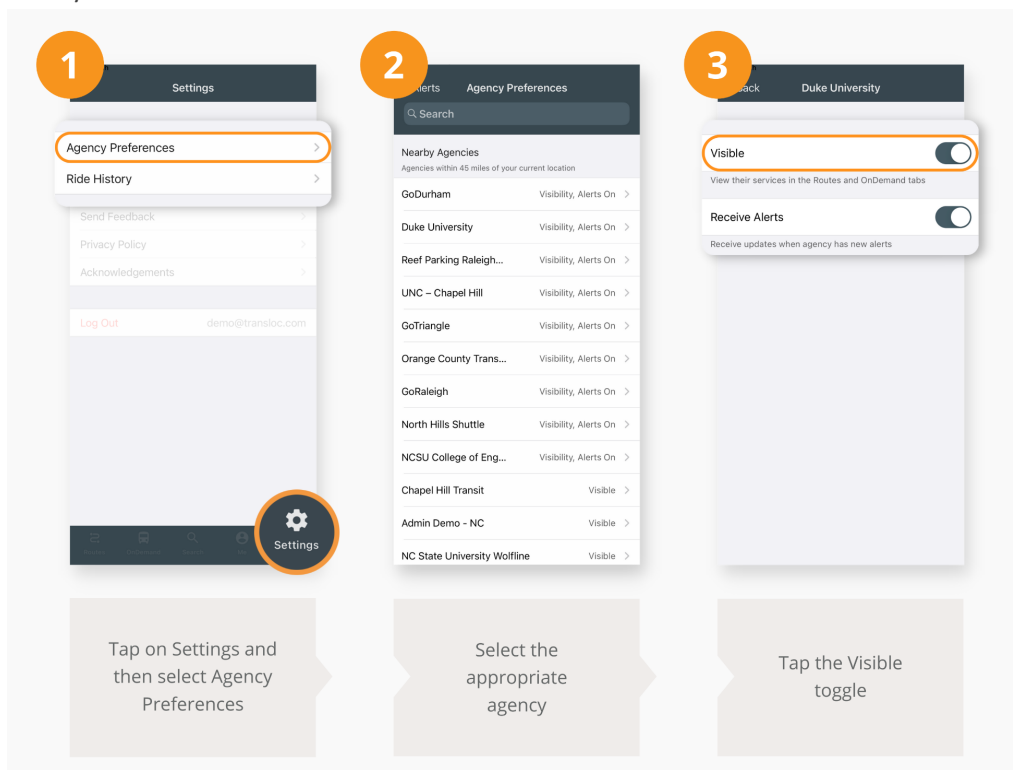
## Routes Differentiate by Agency & Route Comparison

In an area that overlaps with other transit organizations? If multiple services are running simultaneously and open to the public, users can easily differentiate between each service. The mobile application will note what agency provides the service by different route colors and by providing a name tag below the route to ensure riders are accessing only the services they need and aware of the options around them.

## Choosing Services to View: Agency Preferences

Users can customize which agencies they want to view, receive announcements from, and access organized service information by agency. Riders also can favorite and subscribe to individual stops to more easily access them, and view filtered announcement information. The settings tab in the TransLoc app contains about your account, including Agency Preferences and Ride History and allows you to:

- **Send feedback** to TransLoc
- Access our **Privacy Policy**
- View app acknowledgements
- Log out of your current account



## Seamless Experience: TransLoc Multi-Modal Application & Shared Features

TransLoc works to **simplify transportation services** for transportation providers by providing fixed route and on-demand/microtransit Software-as-a-Solution (SaaS). Agencies that adopt both of TransLoc’s solutions gain the ability to advertise and provide a **single app for riders for all services**. This supports riders looking for a simple solution and agencies considering ways to more effectively manage the various transportation services being provided. **Both solutions include** a rider-facing mobile and web app, driver app, and Admin/Dispatch platform. TransLoc is able to offer booking open API capabilities for OnDemand and integrations using GTFS/open API for Fixed Route to third-party applications as well. Above all, riders are empowered with more options and information.

**Fixed-Route View**

**OnDemand View**

**Built-In Trip Planner**

Market a single multi-modal TransLoc App for both modes of transportation

Optimize the best of both options using the Built-In Trip Planner

Setting-up Arrival Notifications

**1** Select a route and the app finds the stop closest to you, or zoom in on the map using your fingers

**2** Tap on a stop

**3** Tap the bell icon to set up a notification 5-30 minutes before vehicle arrival



## Driver Application Overview

The driver will login and assign themselves to the route block via the Mobile Data Terminal (assignments can also be done by dispatch from the desktop administrator dashboard). If the agency has already established names and codes, TransLōc can display that via the MDT. The Mobile Data Terminal (MDT) will display the previous stop, current stop, and **the next stop with schedules**. The focus was to provide a display that provides some options on how to view the display, while supporting operators with an outline of the route.



*The driver app interface allows operators to choose a route and vehicle to begin the day*

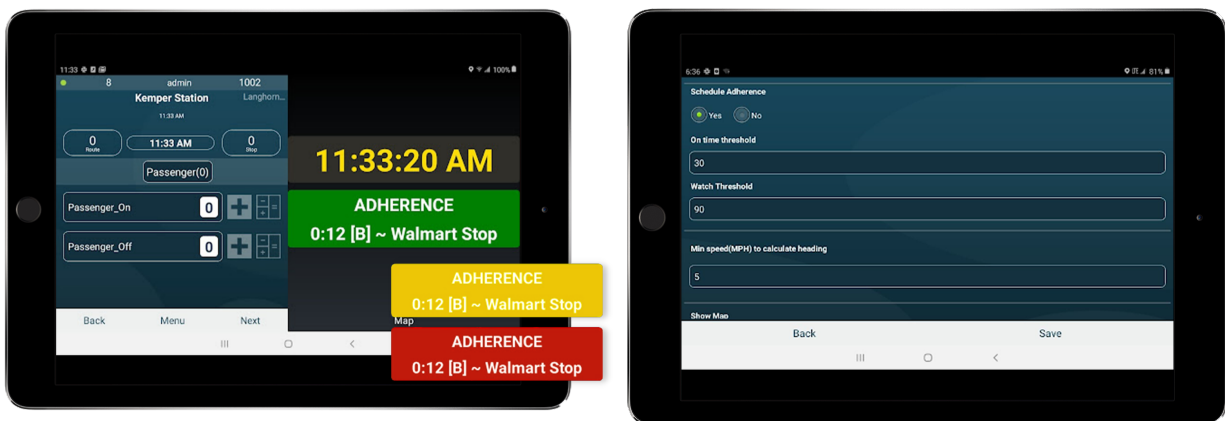
### Mobile Data Terminal

The mobile data terminal is a device with cellular capability. The tablet is used for Driver Assisted Passenger Counting (add-on), map view, pre/post trip (add-on), and schedule adherence. The tablet is secured by a mount with locking capabilities. The mount is wired to the vehicle fuse panel to allow for a constant charge of power with a quick connect magnet.

- The Mobile Data Terminal (MDT) will display the previous stop, current stop, and the next stop with schedules.
- MDTs Auto Turn-on with Vehicle Ignition

### Driver App Configurations: Schedule Adherence

Drivers have a “schedule adherence” interface configured where the agency can input a number of seconds for a message to change color based on the set threshold (i.e., 120 seconds for yellow or late, 300 for red or not on-time). If red or yellow, the driver needs to spend more or less time at a stop to make up time or slow down.



*(Right) Schedule Adherence feature notifies drivers of the rides on-time performance. (Left) Configure Schedule Thresholds*

### Vehicle Data and Logged Driver Time

- When a vehicle is turned off, data collected includes vehicle shutoff date and time and physical location. Driver information is not made available.
- TransLoc can provide a report which displays who made the vehicle assignments if done via the dispatcher, driver, or system.

TransLoc can provide who logged the bus on and off the route through the vehicle assignment report. This provides information on who made the assignment, the time the bus was assigned, and what time the bus came off assignment.

### Driver's Information

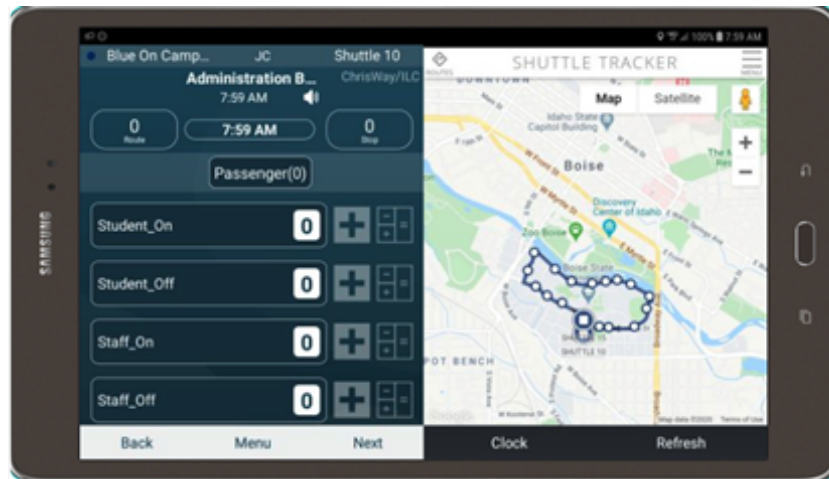
The TransLoc platform does not include a driver management system or driver information. The driver's name with driver ID can be included but it is not connected to a route, stop, or shift. Driver ID can be connected to a vehicle and identified that way.

### Block Out Driver Unavailable Times

Dispatchers can **remove vehicles from service** during desired time periods and TransLoc would allow subsequent audits of this activity in the reporting suite. TransLoc's Client Support Specialist can provide more support as needed.

### Driver Assisted Passenger Counting (DAPC)

TransLoc software allows the driver to input specific passenger counts including specific demographic passenger data such as children, wheelchair/mobility impaired, biker, etc. These **categories can be customized according to the client's needs**. Drivers may use the quick punch keypad to add riders individually or the 10-digit keypad to add multiple riders at one time. The units transmit passenger counting data to administrators for reporting purposes.



### General Reporting: Reporting Suite and GPSGate

As part of its core service, TransLoc offers **multiple report types** for agency administrators through the Administrator Portal (Reporting Suite) and GPSGate/Vehicle Tracking interface. All reports are accessible through a web browser for viewing and accessing historical information. Reports are accessible remotely and can be pulled by time, date, date range, route, stop, bus, or any combination of these criteria with unique parameters for each. TransLoc can support **formats such as .xls, .csv and .pdf**. *Some reports, such as ridership, might require APC or DAPC additional set-up.*

We offer reports that support every level of management of the system from granular exportable data to report summaries needed for day-to-day operations and decisions.

Reporting Suite

**General Reports**

- Arrivals and Departures (By Route and Stop)
  - Shows vehicle arrivals and departures
- Arrivals and Departures (By Route and Vehicle with Loop Time)
  - Reports > Report Viewer
  - Shows vehicle arriv
- Employee Assignments
  - Complete listing of
- Vehicle On Route
  - A listing of vehicles currently on route
- Vehicle Service Report
- Vehicle\_Assignment\_Report\_Ver2
  - A listing of vehicles and the route to which they were assigned
- Performance Reports**
  - On Time Performance

Start Date: 5/14/2020 12:00:00 AM
End Date: 5/20/2020 11:59:59 PM
View Report

Routes: Red Detour, Red, Green, Purple
Stops: Union, Warnock (N), MEB (N), U

Seconds For Early: 30
Seconds For Late: 300

Status Based On: Departure
Force Assign Block:  True  False

Status: On Time, Early, Late, Missing
Hours: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 1

Group Data:  True  False

- Word
- Excel
- PowerPoint
- PDF
- TIFF file
- MHTML (web archive)
- CSV (comma delimited)
- XML file with report data
- Data Feed

Reporting Suite provides customizable parameters for all data collecting needs

## TransLoc Reporting Suite List

**Other Reports:** Vehicle Fleet Activity (speed, idle, trip time, distance) and GPS historical data

General Reports	Performance Reports	Ridership Reports* *(Passenger Counters Required)
<ul style="list-style-type: none"> <li>Arrivals and departures (by route and stop)</li> <li>Arrivals and departures (by route and vehicle with loop time)</li> <li>Employee assignments</li> <li>Headway</li> <li>Vehicle assignments</li> <li>Route report</li> <li>Vehicle on route</li> <li>Vehicle service report</li> </ul>	<ul style="list-style-type: none"> <li>On time performance</li> <li>On time performance summary</li> <li>Schedule by time report</li> <li>Schedule report</li> </ul>	<ul style="list-style-type: none"> <li>All ridership by vehicles</li> <li>Raw ridership</li> <li>Ridership counts - daily</li> <li>Ridership counts - hourly</li> <li>Ridership counts - date and hour</li> <li>Ridership summary</li> <li>Ridership with occupancy</li> <li>Raw APC audit reporting</li> </ul>
<b>NTD Reporting (APCs Required)</b>	<ul style="list-style-type: none"> <li>One-click button/direct download for NTD S-10 report</li> </ul>	

### General Reporting Parameters Available

TransLoc provides different parameters for all its different reports to provide as much customization as possible.

These parameters include:

- By route
- By stop
- By vehicle
- Defining start and end dates

Additional data that our reports produce depending on data presented include:

- Data by day, week, or month
- Include or exclude weekends
- Timestamps
- Longitude and latitude data
- Raw counts - Mark as on-route or off-route (with APCs)
- Color code reports (On-Time Performance colors help define on-time, early, or late data points)

Below are parameters available for some of our standard reports:

### Headway Report Parameters

Client Start Time	<input type="text" value="10/18/2020"/>		Client End Time	<input type="text" value="10/24/2020 11:59:59 PM"/>	
Route	<input type="text"/>	▼	Stops	<input type="text"/>	▼
Headway Type	<input type="text" value="Departure To Arrival"/>		▼	Max Target Headway Minutes	<input type="text" value="5"/>
Group Data	<input type="text" value="Yes"/>		▼	Show Charts	<input type="text" value="Yes"/>
Show Summary Only	<input type="text" value="No"/>		▼		

### On-Time Performance Report Parameters

Start Date	<input type="text" value="10/19/2020"/>		End Date	<input type="text" value="10/25/2020 11:59:59 PM"/>	
Routes	<input type="text"/>	▼	Stops	<input type="text"/>	▼
Seconds For Early	<input type="text" value="30"/>		Seconds For Late	<input type="text" value="300"/>	
Status Based On	<input type="text" value="Departure"/>		▼	Force Assign Block	<input type="text" value="No"/>
Status	<input type="text" value="On Time,Early,Late,Missing"/>		▼	Hours	<input type="text" value="0,1,2,3,4,5,6,7,8,9,10,11,12,13,14"/>
Group Data	<input type="text" value="Yes"/>		▼		

### Schedule by Time Report Parameters

Start Date	<input type="text"/>		End Date	<input type="text"/>	
Select Routes	<input type="text"/>	▼	Select Stop	<input type="text"/>	▼
View	<input type="text" value="Route and Stop by Schedule"/>		▼	Day of the Week	<input type="text" value="Sunday,Monday,Tuesday,Wednesd"/>

### Average Ridership Report

Year	<input type="text" value="2020"/>	Month	<input type="text" value="October"/>
Include Weekends in Summary	<input type="text" value="Yes"/>	Routes	<input type="text"/>
Stop Types	<input type="text" value="All"/>	View	<input type="text" value="Summary"/>

TransLoc provides an **interactive schedule adherence platform that utilizes real-time AVL information** to relate overall system performance and schedule on-time adherence. The on-time performance tool is capable of producing reports based on full route or by individual stop/vehicle on the selected route or for the full fleet. This tool then allows administrators to select a date range and on-time threshold.

### Vehicle Fleet Activity Reports (GPSGate)

Receive vehicle fleet reports on a daily, weekly, monthly, or customized schedule. The example below shows an **Idle Report** showing a list and details of all 4 minute or more idle times for each vehicle. Other events and actions with unique parameters can be created as needed by the client.

**4 minute Idle**  
Parameters  
Period: Weekly  
06/07/2020 - 06/14/2020  
TagID: Email Recipients

**TR1000 Trip & Idle (Detailed)**  
Shows the time and duration of all trips and idles for vehicles within the selected period. Periods of being offline are not included in the report.

Period Start: 06/07/2020  
Period End: 06/14/2020

Total Vehicles: 36  
Total Duration Trip: 23:15:41:40  
Total Duration Idle: 38:9:35:57  
Total Distance: 7391 mi

\* Idle = Time a vehicle is online and while standing still.  
\* Trip = Time that a vehicle is online and moving.

Start Time	Stop Time	Duration	Start Address	Stop Address
Tuesday, 09 June 2020 14:03:10	14:04	0:01:17	831 Commerce Park Drive, Hiwassee, UT 84047, USA	558-836 West T280
Tuesday, 09 June 2020 14:04:27	16:57	2:53:29	558-836 West T280 South, Hiwassee, UT 84047, USA	558-836 West T280
Tuesday, 09 June 2020 16:57:56	17:09	0:11:18	558-836 West T280 South, Hiwassee, UT 84047, USA	876-758 South 808
Tuesday, 09 June 2020 17:09:14	17:13	0:04:24	876-758 South 808 West, Hiwassee, UT 84047, USA	876-758 South 808
Wednesday, 10 June 2020 07:54:00	07:58	0:04:13	876-758 South 808 West, Hiwassee, UT 84047, USA	558-836 West T280
Wednesday, 10 June 2020 07:58:13	08:03	0:05:16	558-836 West T280 South, Hiwassee, UT 84047, USA	558-836 West T280
Wednesday, 10 June 2020 10:57:16	11:33	0:36:32	558-836 West T280 South, Hiwassee, UT 84047, USA	558-836 West T280
Saturday, 13 June 2020 00:48:19	00:48	0:00:31	558-836 West T280 South, Hiwassee, UT 84047, USA	558-836 West T280
		3:57:00		

**1815**  
Total Duration Trip: 20:37:55  
Total Duration Idle: 15:12:13  
Total Distance: 703 mi

**Schedule**  
 Email schedule  file save  
Type:  Weeks and days  Day of month  
Week:   
Day:   
Time: 00 : 00  
Recipients:   
Format: HTML  
Send if empty:  Yes  No

- Example "4 Minute Idle" report customized for an existing customer
- View total fleet idle times
- Idle date and timestamp
- Schedule email reports
- Address is provide here and can also be viewed on the dispatch map

## Sample - Speed Report (GPSGate)

### Speed Report

Events, grouped by event rule.

Period Start: 03/20/2017  
 Period End: 03/21/2017

Total Events: 128  
 Total Vehicles: 3  
 Total Duration: 0:46:38

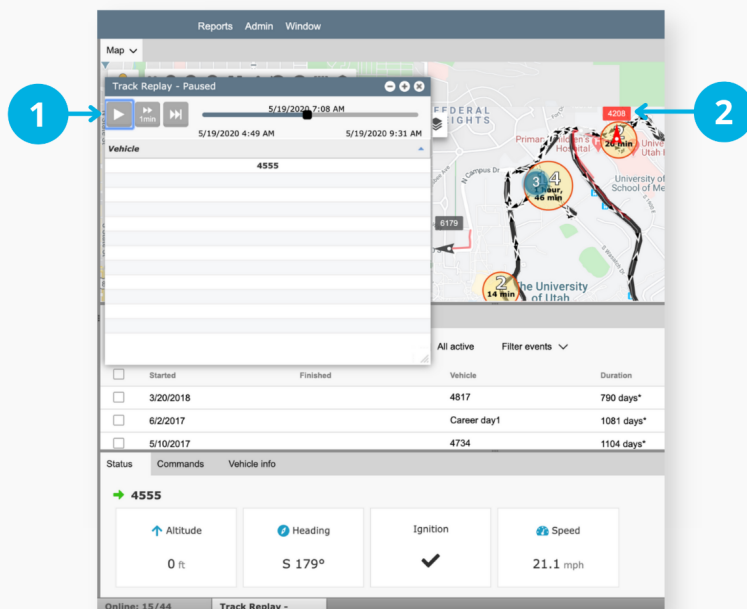
Speed Limit							
Total Events: 128							
Start Date	Start Time	Duration	Vehicle	Event State	Start Address	End Address	Speed
03/20/2017	07:16	0:00:17	Blue Bus	Finished	637 AL-149, Homewood, AL 35209, USA	Sherman Dr, Homewood, AL 35209, USA	27.3 mph
03/20/2017	07:16	0:00:33	Blue Bus	Finished	2181-2117 AL-149, Homewood, AL 35209, USA	1744-1762 AL-149, Homewood, AL 35209, USA	28 mph
03/20/2017	07:23	0:00:10	Blue Bus	Finished	636-638 AL-149, Birmingham, AL 35209, USA	434 Lakeshore Dr, Birmingham, AL 35209, USA	29.2 mph
03/20/2017	07:25	0:00:11	Red Line 1	Finished	Montague Dr, Homewood, AL 35209, USA	Montague Dr, Homewood, AL 35209, USA	28 mph
03/20/2017	07:26	0:00:48	Blue Bus	Finished	637-639 AL-149, Homewood, AL 35209, USA	1744-1762 AL-149, Homewood, AL 35209, USA	29.8 mph
03/20/2017	07:34	0:00:04	Blue Bus	Finished	636-634 AL-149, Homewood, AL 35209, USA	434 Lakeshore Dr, Birmingham, AL 35209, USA	27.3 mph
03/20/2017	07:38	0:00:10	Red Line 1	Finished	Montague Dr, Homewood, AL 35209, USA	Montague Dr, Homewood, AL 35209, USA	26.7 mph
03/20/2017	07:45	0:00:10	Blue Bus	Finished	637-639 AL-149, Homewood, AL 35209, USA	681-679 AL-149, Homewood, AL 35209, USA	31.1 mph
03/20/2017	07:45	0:00:25	Blue Bus	Finished	2181-2117 AL-149, Homewood, AL 35209, USA	2119-2121 AL-149, Homewood, AL 35209, USA	30.4 mph
03/20/2017	07:53	0:00:11	Blue Bus	Finished	636-638 AL-149, Birmingham, AL 35209, USA	637-635 AL-149, Homewood, AL 35209, USA	26.7 mph
03/20/2017	08:05	0:00:12	Blue Bus	Finished	637-639 AL-149, Homewood, AL 35209, USA	681-679 AL-149, Homewood, AL 35209, USA	27.3 mph

## Real Time Data

TransLoc has the ability to keep track of metrics/statistics associated with the vehicle status in real time with graphical charts that are **updated continuously**. Real time graphical charts are available in the Reporting Suite on any report that allows for time/date inputs. Additionally, all data available through GPSGate (vehicle tracking back-end interface) can be pulled with real time graphical charts as well.

## Bus History Module: GPSGate/Vehicle Tracking Interface

TransLoc also offers historical playback through GPSGate with a **breadcrumb-style playback tool for all vehicle data transmissions** as well as a conventional report for logon/logoff data and alarms. This tool allows administrators to rewind a single bus location or select a route and view the exact locations of multiple buses over a precise period of time. Administrators can select a specific date, time, route, and range to observe a vehicle's exact location.



1. All historical vehicle activity can be replayed and is stored in the cloud
2. System shows how long and where vehicles sat idle during chosen time ranges (Example: Vehicle sat idle in 2 spots for a total of 26 minutes)

Detailed information on the status and history of fleet activity

## NTD Reporting

TransLoc can offer the data needed to complete NTD's S-10 and MR-20 forms for customers using Xovis APCs through a direct download option added within the Reporting Suite for NTD Reporting. Customers may export reports from

one of our standard formats for a specified date range. TransLoc can also support clients in getting TransLoc installed APC service data NTD certified.

Agency NTD Report Sample							
May 2020							
(5/1/2020 - 5/31/2020)							
Service Supplied	SATURDAY		SUNDAY		WEEKDAY		Total
	Average	Total	Average	Total	Average	Total	
Line 11 Total Actual Vehicle Miles	1,288.51	6,442.55	1,175.34	5,876.71	1,516.55	31,847.59	44,166.85
Line 12 Total Actual Vehicle Revenue Miles (VRM)	1,147.95	5,739.76	1,045.65	5,228.23	1,312.94	27,571.69	38,539.69
Line 14 Total Actual Vehicle Hours	125.15	625.74	115.06	575.32	147.57	3,098.99	4,300.05
Line 15 Total Actual Vehicle Revenue Hours (VRH)	113.44	567.19	104.09	520.47	131.94	2,770.82	3,858.48
Service Consumed							
Line 18 Unlinked Passenger Trips (UPT)	1,610.00	8,050.00	1,815.00	9,077.00	2,050.00	43,070.00	60,197.00
Line 20 Passenger Miles	4,425.68	22,128.40	3,926.50	19,632.49	4,603.04	96,663.78	138,424.67

Agency NTD Report Sample provided by TransLoc

### Collect Information for Reporting

TransLoc can collect information for reporting, analysis, and system management, including, but not limited to: Whether the operator has logged on to a fixed route run; Operator log-on/log-off; Location; Vehicle ID; Route number; Run number; Date and time.

### Fleet Status Monitoring Capabilities

Both live and past vehicle status data can be viewed, tracked, and analyzed with the ability to filter vehicles by specific variables and export data. The main vehicle live health and status variables that can be viewed, tracked, and analyzed are Acceleration; Battery level; Heading; Ignition; Odometer; Speed; and Idle Status.

### Ridership Count by Route and Stop Reports (With APC)

Agencies can view ridership count by route, stop and vehicle. The analysis provides customers a detailed view of the heavily used stops and routes **yielding an ability to optimize routes and system performance**. Filters are available to customize what data is needed and date ranges desired. Ridership count by routes includes graphs for visual comparisons. All data can be exported into different formats for analysis and documentation.

Ridership count by route and stop reports are available for agencies with APCs with detailed data. Agencies can also view specifics about each count to analyze any patterns that are leading to discrepancies. For example, the vehicle off route when the APC entry occurred or other scenarios. TransLoc’s goal is to provide detailed data and ways to filter it to provide options for troubleshooting and understanding ridership.

Total Entries: 150

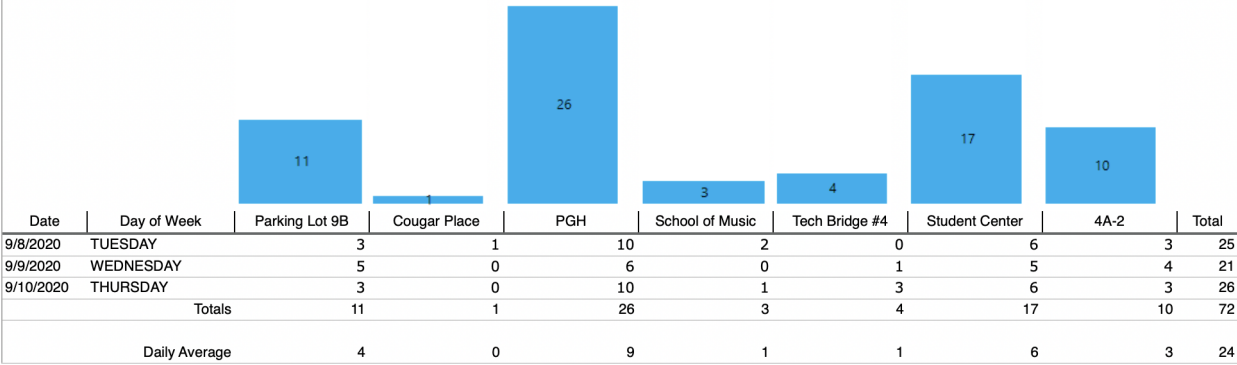
Vehicle	Counter	Entries	On Route	Arrival Date Client Time	Latitude
4734	UofU4734-Back	2	✘	9/22/2020 5:56:30 AM	40.761090
4734	UofU4734-Back	5	✔	9/22/2020 7:37:03 AM	40.765860
4734	UofU4734-Back	1	✔	9/22/2020 7:51:36 AM	40.765810
4734	UofU4734-Back	1	✔	9/22/2020 8:24:29 AM	40.765350
4734	UofU4734-Back	1	✔	9/22/2020 8:43:18 AM	40.765170

### Sample - Ridership Counts Daily Report

Filter by dates and route(s). View data sorted by day of the week and counts per stop. \*Example use-case, client can determine if a stop is not being used on a particular day of the week.

#### Ridership Counts - Daily

Report Generated Time: 10/9/2020 7:55:27 AM CT



### Sample - Ridership Counts by Date and Hour with Summary

Start Date:

End Date:

Routes:

Vehicle:

Hours:

Days of week:

#### Ridership Counts by Date and Hour with Summary

Report Generated Time: 10/9/2020 8:01:05 AM CT

Day	Date	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	Total
Tuesday	9/8/20	0	2	4	2	3	4	4	2	1	1	1	1			25
Wednesday	9/9/20		4		6	0	4	2	1	1		1	1	1		21
Thursday	9/10/20			2		4	5	5	1	1		4	2	1	1	26
Friday	9/11/20		3				1	1	3	4	1	2	4	1		20
Total		0	9	6	8	7	14	12	7	7	2	8	8	3	1	92
Average		0	2	2	2	2	4	3	2	2	1	2	2	1	0	23
High		0	4	4	6	4	5	5	3	4	1	4	4	1	1	6
Low		0	2	2	2	0	1	1	1	1	1	1	1	1	1	0



### Sample - Raw APC Audit Report

Report shows a raw count of on/off for each APC in addition to a daily average and weekly average. The client will be emailed this report each morning to verify the function of the APCs.

APC Count					
Vehicle	Raw Entries	Raw Exits	Daily Average	Weekly Average	
1566	73	69	95 %	97 %	
1567	49	49	100 %	99 %	
1573	48	48	100 %	99 %	
1574	73	71	97 %	96 %	

### Sample Headway Report

Staff is able to customize the parameters and filters for Headway Reports. The sample below was created using the following features. Users can choose routes, stops, headway targets and **choose headway type**. Information is then digested in a sheet or chart format.

Client Start Time

Route

Headway Type 
 Departure To Arrival  
 Arrival To Departure  
 Arrival To Arrival  
 Departure To Departure

Group Data

Show Summary Only

Client End Time

Stops

Max Target Headway Minutes

Show Charts

Route

---

Campus Circulator Avg: 00:30:

---

Arrival Date

09/08 Avg: 00:31:19

---

Stop

PGH Avg: 00:40:15

Vehicle	Arrival Time	Departure Time	Time At Stop	Stop Headway Time
452	7:25:09 AM	7:26:29 AM	01:20	00:00:00
452	8:03:35 AM	8:04:15 AM	00:40	00:37:06
452	8:42:30 AM	8:43:10 AM	00:40	00:38:15
452	9:15:45 AM	9:16:25 AM	00:40	00:32:35
452	9:46:00 AM	9:46:15 AM	00:15	00:29:35
452	10:17:30 AM	10:17:45 AM	00:15	00:31:15
452	10:46:46 AM	10:47:21 AM	00:35	00:29:01
452	11:17:40 AM	11:18:15 AM	00:35	00:30:19
452	11:52:45 AM	11:53:40 AM	00:55	00:34:30
452	12:28:35 PM	12:29:06 PM	00:31	00:34:55
458	1:22:18 PM	1:22:43 PM	00:25	00:53:12
458	2:04:49 PM	2:06:29 PM	01:40	00:42:06
458	2:46:48 PM	2:48:38 PM	01:50	00:40:19
458	3:40:45 PM	3:41:05 PM	00:20	00:52:07
458	4:32:50 PM	4:33:05 PM	00:15	00:51:45
458	5:21:45 PM	5:22:55 PM	01:10	00:48:40
458	6:21:30 PM	6:23:35 PM	02:05	00:58:35

---

Student Center Avg: 00:23:58

4A-2 Avg: 00:41:33

### Sample - On-Time Performance Report

On-Time Performance standard report for detailed information by route, stop, and each trip. The report color codes OTP data for ease of view.

## On Time Performance

Example  
 8/24/2020 - 8/30/2020 11:59:59 PM  
 Report Generated Time: 8/31/2020 9:45:18 AM MST



Date: 8/24/2020 (61.89 % On Time)

Route					
Blue Detour (62.90 % On Time)					
Stop					
200 S University (68.75 % On Time)					
Scheduled Arrival Time	Actual Arrival Time	Scheduled Departure Time	Actual Departure Time	On Time Status	Vehicle
6:03:00 AM	6:06:33 AM	6:03:00 AM	6:06:57 AM	On Time	6186
6:18:00 AM	6:15:42 AM	6:18:00 AM	6:17:53 AM	On Time	6185
6:33:00 AM	6:31:43 AM	6:33:00 AM	6:32:03 AM	Early	6186
6:48:00 AM	6:46:52 AM	6:48:00 AM	6:49:33 AM	On Time	6185

### Sample - Arrival and Departures (By Route and Stop)

Start Date: 3/8/2021      End Date: 3/12/2021 11:59:59 PM

Route: Circulator Route      Stops: Circulator Route-Union, Circulator

Navigation: 1 of 1 | 100%

Circulator Route

Arrival Date: 03/08

Stop: Union

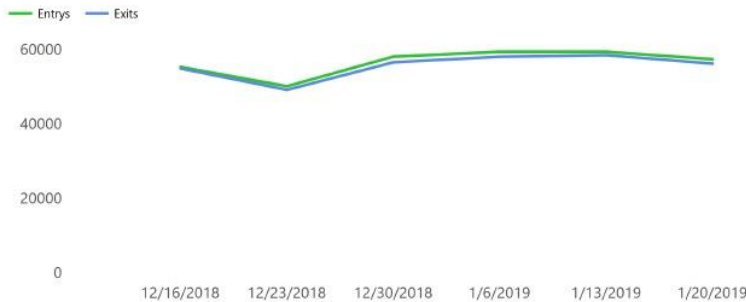
Vehicle	Arrival Date	Departure Date	Time At Stop
4604	3/8/2021 5:58:54 AM	3/8/2021 5:58:54 AM	00:00:00
4604	3/8/2021 6:10:07 AM	3/8/2021 6:10:07 AM	00:00:00
5175	3/8/2021 6:21:48 AM	3/8/2021 6:21:48 AM	00:00:00
5175	3/8/2021 6:41:02 AM	3/8/2021 6:41:24 AM	00:00:22

## Sample - Weekly Summary Report

### Key Metrics

57,281	56,101	56,506	59,278	-3.37%
<b>Entries Reporting Week</b>	<b>Exits Reporting Week</b>	<b>Average Weekly Entries (Last 6 Weeks)</b>	<b>Entries Previous Week</b>	<b>Increase In Entries From Previous Week</b>

### Rolling 6 Weeks



### Counts by Day of Week

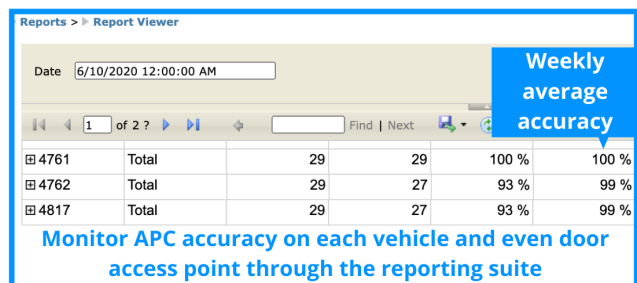
Week Day	Entries and Exits by Week	Week Start												Total	
		12/16/2018		12/23/2018		12/30/2018		1/6/2019		1/13/2019		1/20/2019		Entries	Exits
Sunday		7,664	7,602	6,615	6,371	7,658	7,358	7,922	7,325	7,897	7,592	7,036	6,892	44,792	43,140
Monday		8,458	8,335	6,564	6,631	8,070	7,897	8,600	8,307	8,652	8,587	7,607	7,417	47,951	47,174
Tuesday		8,650	8,531	6,201	5,958	8,109	8,009	8,818	8,600	8,356	8,285	9,759	9,558	49,893	48,941
Wednesday		8,414	8,493	7,261	7,218	8,936	8,782	8,489	8,424	8,564	8,604	8,487	8,179	50,151	49,680
Thursday		8,053	8,029	7,447	7,348	8,831	8,537	9,195	9,050	9,336	9,214	8,428	8,386	51,290	50,564
Friday		6,804	6,848	8,228	8,148	8,594	8,390	8,679	8,587	8,822	8,573	8,599	8,384	49,726	48,930
Saturday		7,154	6,946	7,700	7,393	7,783	7,504	7,581	7,663	7,651	7,533	7,365	7,285	45,234	44,324
<b>Total</b>		<b>55,197</b>	<b>54,784</b>	<b>50,016</b>	<b>49,067</b>	<b>57,981</b>	<b>56,457</b>	<b>59,284</b>	<b>57,956</b>	<b>59,278</b>	<b>58,388</b>	<b>57,281</b>	<b>56,101</b>	<b>339,037</b>	<b>332,753</b>

## Automatic Passenger Counters (APC)

TransLoc offers a fully compatible, rugged, automatic passenger counting system using Xovis Germany (formerly Hella Aglaia) APS hardware. This counting system **works with TransLoc hardware and software**, allowing administrators to access a single administrative and reporting portal to manage their fleet.

- Track counts by vehicle, route and stop
- Generate reports (**NTD Reporting**) and improve fleet management
- **APCs offer** easy setup, low cost, wireless integration, no driver integration
- TransLoc can support clients in the NTD certification process
- Choose an APC system that meets the FTA's **95% confidence and precision levels**

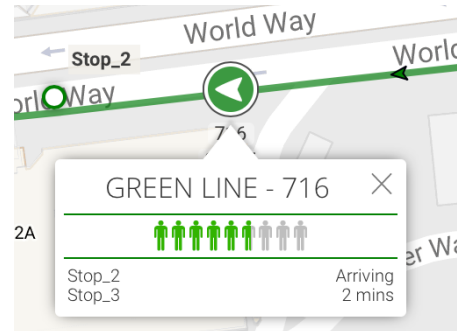
The automatic passenger counting units utilize advanced 3D imaging technology to detect passenger directional entry and exit movement accurately. Our clients consistently experience best-in-market **boarding and**



**alighting accuracy between 98%-99%, a testament to the reliability and precision of our system.** Through our expert Implementation Specialists Team, TransLoc ensures counting data is compiled to support clients with satisfying National Transit Database (NTD) reporting, **guaranteeing boardings and alightings with at least 95% or higher accuracy.** The units transmit passenger counting data in real-time, enabling administrators to make informed decisions promptly. The APC units also have the unique ability to be remotely adjusted or configured for optimal performance without disrupting vehicle service.

### Real-Time Passenger Occupancy

In addition to showing the bus arrival time, the live GPS map will **show riders the occupancy of the vehicle on a graphical display.** Data from the APC and GPS are collected and received on the onboard systems as well as transmitted to our servers in real-time. The onboard storage devices are equipped with sufficient storage space for storing registered data, based on time intervals and number of stored records etc. More importantly, TransLoc APC sensors integrate with the GPS router and transmits the data packets to our server in real-time upon the closing of the door. Therefore, there should not be a concern that counts have the potential to be lost or run out of storage capacity considering that all counts are being sent to TransLoc servers throughout the day in real-time. It is through this method that we are able to provide the unique view of real-time vehicle capacity.



Hardware easily mounts above vehicle door(s) and transmits data for reporting and analysis in real time.

The APC consists of two major components:

- Counting Sensor(s) (Xovis APCs)
- Wireless Connection (Pepwave Routers provided)

The core component of the automatic passenger counter is a 3D stereo view providing integrated image processing and analysis functions. It can be installed near the entrance at a height of up to six meters and will precisely evaluate an area of up to eight meters square. **It works reliably even in tough operating environments (temperature, humidity, vibration, etc.).** **One necessary component** of TransLoc's automatic passenger counting system includes a Wi-Fi router (Pepwave Router that TransLoc provides) that enables the APC units to function properly. An **added benefit** for agencies is that it can offer its riders **Wi-Fi access** from a router that is already onboard, *if agencies choose to add this feature for its riders at a higher data rate cost.* An ethernet interface enables quick and easy data transfer, **remote diagnostics and configuration** and provides the transmission of data to an on-board computer or an existing network system.

### Notable TransLoc APC Features:

- Bi-directional counting on a definable area (polygon)
- Variable position of counting lines
- Detection of U-turns
- No double counting

- Automatic compensation for interference from swinging and sliding doors
- Start and stop function via door contact and movement of the bus
- No interference with other functions
- Off-the-shelf standard connectors
- Flexible positioning and tilt options facilitate retrofits

### Counting Accuracy

Counting accuracy will not be affected by normal variables including:

- the reasonable speed at which a person passes under a sensor
- by a passenger remaining immobile at the sensor location
- by any other obstruction of the sensor
- by variations in light and temperature within the operational specifications of the APC system

Ridership Reports (APC required)	
*DAPC option provides counting data (boardings) with custom categories	
All Ridership by Vehicles	Ridership Counts - Hourly
Raw Ridership	Ridership Counts by Date and Hour
Ridership Counts - Daily	Ridership Summary Report
Raw APC Audit Report	Ridership with Occupancy
<b>NTD Data Reporting*</b> <i>One-click button/direct download for NTD S-10 report</i>	

### Counter Obstruction

When passengers remain immobile in the counter sensor field and are a reason for obstruction, resulting in affecting the count accuracy, the event will be recorded in the data and may be reviewed for consideration.

### Passenger Carrying Objects

Counting accuracy will also include features to reduce or eliminate counting inaccuracies caused by passengers carrying items such as packages, boxes, or briefcases onto the vehicle.

### Boarding & Alighting Passengers

The sensors will differentiate between boarding and alighting passengers from either door of the vehicle.

### Flag Unprocessed Data/APC Count Confirmation

TransLoc has reporting that will show if a vehicle assigned to a route is not tracking the number of boardings and alightings or if it is receiving ridership but not assigned to a route. This does not include if a driver is driving off route. Additionally, accuracy for the APCs on each vehicle can be viewed on daily reports provided.

### Preventing Double-counting

Counts are only associated with a route if the bus is assigned to an active route. In this example, if an agency unassigns the bus that is broken down before the passenger exit and waits to reassign the new bus once the passengers have entered there will not be any double counts on the route reports. The counts will still show in the Raw reports, but will not be double counted for the route.

## Data Saving & Avoiding Unintentional APC Data Loss

Data reported can be downloaded directly through the TransLoc CAD/AVL platform where all standard reports are available in csv, excel and other file formats. To avoid unintentional data loss, if the router loses cell services and the APC data cannot be sent it will be stored on the APC device until it is sent, or the device is powered down. Once it hits our server, we store it in a central APC database and send the data from there to its client database. If for some reason the data is lost or damaged during this process, we can go back to the central APC database to get the raw data sent back to the clients database.

## APC Confirm Receipt of Transmission of Raw Data

TransLoc's APC (Hella devices) sends the data to the TransLoc service server, it confirms it was sent and then drops the information. The APC's will hold the data until it is sent, the issue is if the unit loses power, then it will lose everything in its memory. **The APC system does include a power backup in the event external power is lost.**

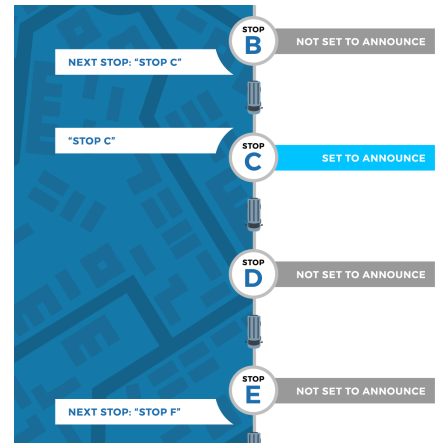
## How the APCs are powered and how they draw power

The APC system is powered by the Pepwave Router, which is hardwired to the vehicle's power source. The Pepwaves have a sensor that can be configured to detect ignition and shut-off after the vehicle has been turned-off for a certain time period. By default, TransLoc sets this to shut down when the vehicle shuts down, but it can be configured to a period after the vehicle shuts down, such as 15 minutes.

## Automatic Voice Announcements (AVA)

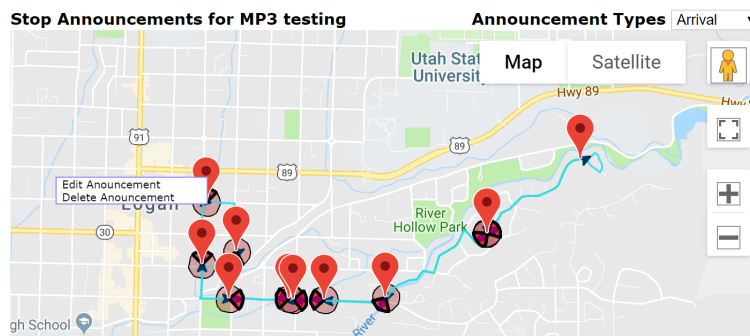
TransLoc is able to offer an automated voice annunciation (AVA) system which is fully automated and in line with the Americans with Disabilities Act of 1990 (ADA). The proposed AVA system uses audible and visual announcements inside the bus as well as audible announcements outside the bus using speakers. The audio announcements can coordinate with interior next stop signs to provide riders all the information they need to effectively utilize the transit system.

The audio annunciation system may operate with either pre-recorded audio files or through text-to-speech technology and the agency may choose which option will work best for them. The system supports MP3 audio file formats.



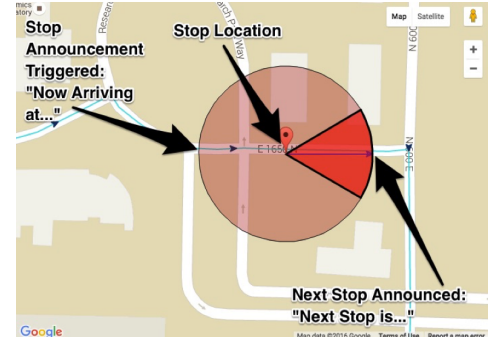
## Precise Geofence Announcement Triggers

The geo-fence trigger announcements can be set for bi-directional entry and/or exits within a 10 ft radius to allow for a myriad of announcements to be managed on the same route at the same location.



As the bus is running its routes, it will trigger announcements by driving into geofences. The system will then play the corresponding announcement.

Administrators can input traffic flow arrows to prevent triggering stop announcements if the vehicle is going the opposite direction on a route. Users can also easily adjust the diameter of the announcement field circle to change how close to the stop announcements are made. The dedicated TransLoc Project Manager will also make these changes as part of the service if needed.



TransLoc will utilize the vehicle’s existing audio system to announce the next stops and other messages. In the rare case that the vehicle does not have a compatible audio system, TransLoc can provide audio equipment.

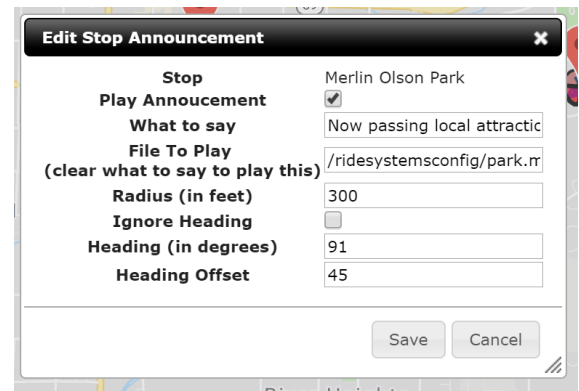
The AVA solution can make the following announcements. Along with each announcement, corresponding text is displayed on the interior sign.

- Stop announcements when approaching selected stops, triggered by location of the vehicle.
- Current route and destination on the interior speaker at the first stop of a trip.
- Public safety messages when selected by the vehicle operator.

Between stop announcements the system displays the current date and time, and the current route and destination of the vehicle on the interior sign.

### AVA Invisible Announcement

Administrators can create invisible stops in the system to allow for announcements to run even beyond the outlined stops throughout the route. Invisible stops are stops that can only be viewed on the admin site by administrators. A stop can be made invisible by unchecking the “visible” box at the bottom of the New Stop or Edit Stop screen. This will cause the stop to still collect valuable data for reports, but not be visible to the public. Invisible stops can be used for announcements and/or advertisements, for example.



### Additional languages

Audio announcements are automatically available in English. Clients can provide pre-recorded audio files of additional languages if desired. Pre-recorded audio files often offer the best and clearest announcements, but with text-to-voice technology, administrators can easily adjust announcement content and can configure announcement geo-triggers in-house without having to go through the recording process. The system supports MP3 audio file formats.

### Stand-alone Speakers (Optional)

If the vehicle has no audio system, TransLoc offers this speaker set to support AVA: **3-way Mini Box Speaker System - 3.5 Inch 200 Watt Weatherproof Marine Grade Mount Speakers - in a Heavy-Duty ABS Enclosure Grill - Pyle PLMR24B**. Mounted on a wall, with a speaker maximum power output of 200 Watts and frequency response of 21 KHz. We use this in conjunction with this 5-channel amplifier: HIFONICS Thor HIGH Performance Compact

## Hardware

### Samsung Galaxy Tab Active5

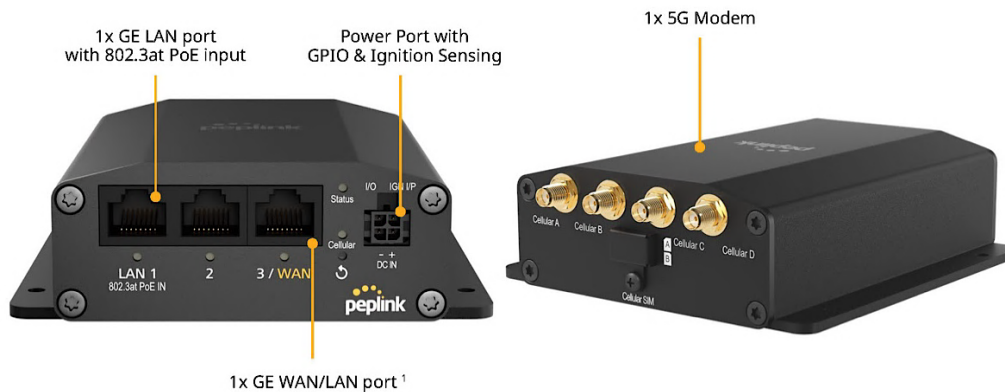
If desired, TransLoc offers a Mobile Data Terminal (MDT) for drivers, which runs the Driver Mobile Application. If the agency wishes to incorporate an MDT, TransLoc provides Samsung Galaxy Tab Active5 tablets. The tablet's rugged design works in the harshest environments and can withstand splashes, dust, drops, and extreme temperatures. Its display is shielded by resilient Corning® Gorilla® Glass and can be safely sanitized.



### Peplink Cellular GPS Router

The Peplink MAX BR1 Mini Router functions as the main hub for several transit services, such as GPS tracking (**SIM Card included**), wi-fi, and as a communication device for APCs. This router is hardwired into the vehicle; the Peplink MAX BR1 Mini Router also has a multi-purpose function, which supports TransLoc's hardware integrations. **Optional add ons of APCs, signage, and badge scanners can all be connected via the Pepwave unit's LAN ethernet ports.**

**Remote Assistance** is done through **InControl**, which helps with Wi-Fi setup, GPS tracking information, and bulk push configurations. With the VPN, TransLoc has the ability to remotely connect to the devices connected via ethernet. GPS Tracks are forwarded to GPSTrack (TransLoc's backend vehicle tracker offering additional nuanced fleet status information) using a TAIP ID for individual identification. The TAIP ID (Last four of Serial Number) is used to identify the device.



### Optional Wi-Fi Vehicle Hotspot: InControl (Add-On)

TransLoc is able to utilize the Pepwave Vehicle Router to provide Wi-Fi service for riders. A Wi-Fi management tool is available for administrators to view usage, create a landing page, and throttle use by device, among other features. The data allowed per device is 100mb/device/day.

- **Captive Portal:** Requires users to accept terms and conditions prior to using the Wi-Fi
- Ability to **limit the amount of data** that can be used per sign in
- Customizable to include client's terms and conditions, **logo**, color scheme and custom messages
- Easy setup across multiple devices
- **Content blocking**



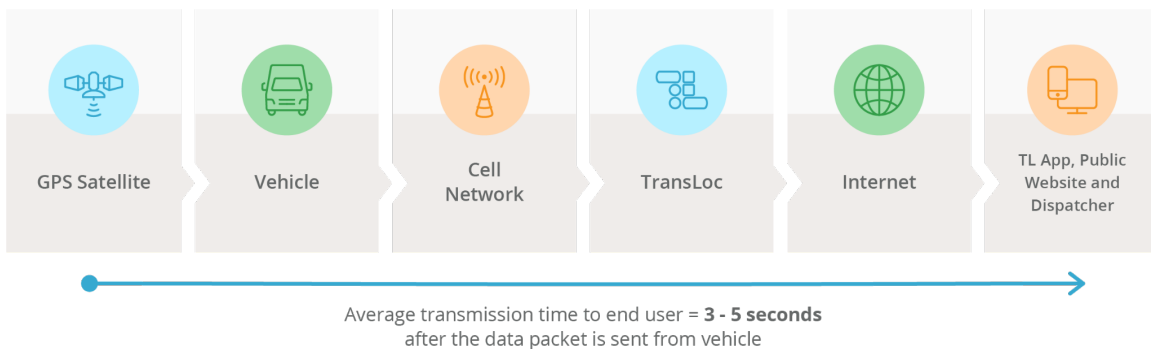
### Durability Made for Mobility

The Pepwave Max Mini is lightweight and can operate in temperatures from -40 degrees Fahrenheit to 149 degrees Fahrenheit, as well as 15% - 95% non-condensing humidity. With a footprint of 5.0 x 4.2 inches, the Max Mini can fit in just about any small space. It can be powered using Passive PoE, reducing the number of wires in the vehicle.

### Transmitting Information & GPS Tracking Frequency

The frequency of reporting real-time vehicle location from the agency dashboard typically shows an auto refresh rate of **3-5 seconds**. This precise and constant update allows for accurate data, such as that used to acquire vehicle historical location data. The send rate is configurable. The transmission time is static and is dependent on the speed of the cellular network and the speed of the end user's internet connection.

The agency can view important vehicle information on the admin dashboard and re-route vehicles at a moment's notice if needed. This is how TransLōc makes sure that both administrators and passengers are receiving the information they need. Additionally, passengers do not waste time standing at bus stops or worse, miss their bus as they can view the vehicles in real-time and additional information.



### MDT Secure Mounting of Antenna

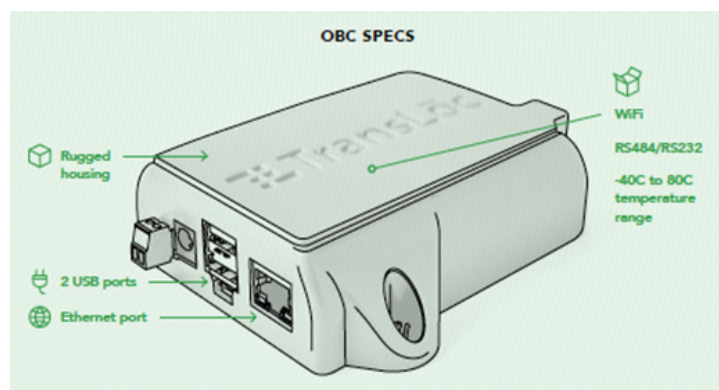
Antennas are mounted on the inside of the vehicle near a window or clear line of site.

### Weatherproof Cellular Antenna

Cellular antennas are mounted in the vehicle and meet industry standards for operating temperatures.

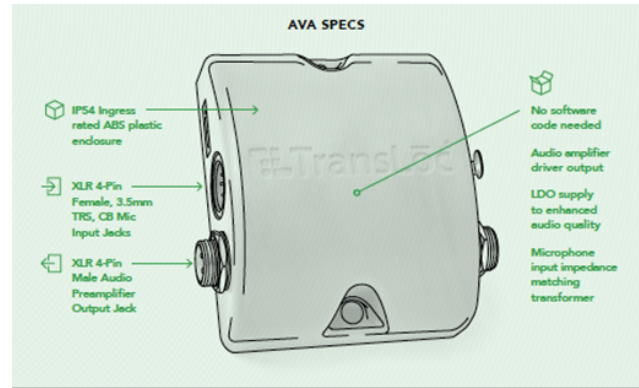
### Onboard Controller

The Onboard Controller (OBC) is a small computer that is placed onto a bus which provides local computing power for services that can take place on the bus. This device offers the agency an extra level of protection to ensure that even when there may be a disruption in the internet connectivity, the onboard systems such as automated voice announcements and vehicle signage will function normally. The OBC also provides remote diagnostic capabilities, providing the TransLōc information on how the onboard systems are functioning and allowing for a quicker response time in getting any potential issues resolved.



## Automated Voice Announcements Box

The Automated Voice Announcements (AVA) box connects to the OBC and then to the PA system in the vehicle. The OBC sends audio to the AVA box to play through the PA system. The AVA box will pause announcement playback when it detects a driver is speaking over the microphone, and once the driver finishes, the automatic announcements will resume.



## Inline Power Fuses

As a part of our standard practice, inline power fuses are installed on TransLoc tracking units to prevent power shorts and device failures.

## Spare Hardware

Due to the nature of the services that we provide, TransLoc recommends that clients maintain a 10% spare ratio for GPS tracking equipment. In the event of a device failure or bus out of service, these spare GPS units are available for rapid replacement. This ensures that there is minimal downtime in your tracking ability while the device is repaired, or regular bus is out of service.

## Extended Warranty Option

TransLoc provided hardware and software can be monitored and adjusted remotely, so the majority of issues are able to be corrected in a short timeframe. Remote support of your TransLoc products is included for the life of the agreement. For issues that are not able to be addressed with remote support, our warranty is applied.

All hardware is sold with a replacement warranty for the first 12 months from the date of shipment. This warranty period can be extended by two additional years with the purchase of TransLoc's Extended Warranty. TransLoc's Extended Warranty covers equipment failure due to normal wear and tear or manufacturer's defect. The warranty will not cover equipment that has been (i) damaged, blocked, modified, disassembled, vandalized, destroyed, or interfered with; (ii) subjected to extreme temperatures, flooding, over-voltage, electrical surges, misapplication of electrical power, or caustic chemicals; (iii) improperly installed or maintained by Customer or any third party; (iv) used for a purpose other than as intended by TransLoc, including but not limited to use in a configuration not recommended by TransLoc; or (v) subject to theft, damages sustained from an accident or vehicle malfunction, vandalism, or damage due to neglect by a driver, passenger, other individual.

## TransLoc Signage Integrations

10 min

Four types of signs are available. Internal Destination — Displays and plays stop arrivals and departures. Wayside- located at a stop or terminal. Lobby- located at an internal stop or terminal. Headway- located in the front or rear of a bus indicating the route the bus is on. Display types: map, terminal view, or roller.

**Display vehicle arrival estimates.**

TransLoc recognizes the importance of informing passengers on a transit vehicle and those waiting for the next bus about specific routes or destinations. We offer and integrate with various sign options, including vehicle signs, wayside signs, and interactive kiosk signs. Our integration success extends to signs manufactured by Hanover, Luminator, and IPdisplays. However, it's important to note that the integration capability depends on the unique **model** type, **serial number**, and the specific **controller unit** (if applicable) used to connect the sign to the vehicle.

### Vehicle Signs

TransLoc's vehicle signs, such as headway and interior destination signs, are designed to enhance the passenger experience by providing route information. Headway signs, typically mounted on the exterior of the transit vehicle, can be positioned at the front, side, or rear. These signs display the vehicle route and destination information from the fixed route software, are hardwired into the vehicle, and are managed through the onboard controller (OBC). The OBC is wired into the vehicle and linked to the Pepwave router to connect to the AVL system.



Interior vehicle displays, mounted near the front of the vehicle, typically display the stop names along a route, regularly informing the passengers of their current location. Providing "This Stop" and "Next Stop" information helps ensure that passengers do not miss their stop, making their journey stress-free. Interior vehicle signs are hardwired into the vehicle and managed through the OBC. The OBC is wired into the vehicle and linked to the Pepwave router to connect to the AVL system. When used in conjunction with the Automatic Voice Announcement (AVA) feature available through TransLoc for audible and visual announcements, agencies can ensure compliance with the Americans with Disabilities Act of 1990.



### Wayside/Transit and Lobby Signs

Wayside or Transit signs are automated stationary display panels at exterior stops or terminals. Lobby signs are placed at internal stops or lobbies so passengers can wait while protected from the elements. Both types of signs display static information and provide reliable real-time transit data for riders. The information displayed can include bus schedule and route information, used for journey planning before departure, and real-time information derived from TransLoc's AVL platform, which changes continuously due to real-world events. Wayside and Lobby signs are available with a map, roller, or terminal view on various internet-enabled monitors or tablets and are flexible enough to display horizontal or vertical information. For data connectivity, a URL connects directly to the TransLoc software system.



Horizontal



Horizontal Terminal



Horizontal Runner

### Kiosk Signs

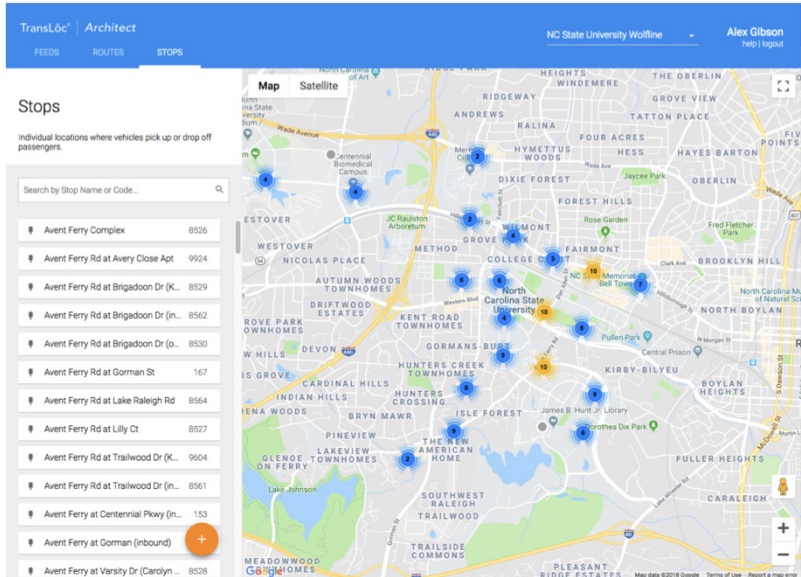
Kiosk signs are dynamic transit signs at terminals or stops that operate **through human interaction**. They help communicate important transit information to passengers in real-time and facilitate their movement efficiently. Displays typically include:

- Departures and arrivals
- Delays and schedule changes
- Messages of general interest and emergency messages
- Find the best route
- Purchase tickets and passes

TransLoc offers **kiosk signs through our trusted partners** for clients needing an enhanced transit experience for their riders.

### TransLoc Architect and GTFS Editing

TransLoc Architect makes maintaining clean, error-free GTFS information simple by enabling agencies to easily create and update fixed route stops, trips, schedules, and shapes in an intuitive map view. New GTFS feeds can be built from the ground up, or an existing GTFS file can be imported and edited with ease. Architect's feed builder walks users through each element involved in creating a comprehensive GTFS dataset. Multiple feeds can be managed and saved, providing access to historical feeds. Feeds are also able to be duplicated, so edits can be made without fear of losing the original data. TransLoc Architect makes it infinitely easier to create accurate and usable GTFS data by using real-world maps as the backdrop for defining/altering stops, routes, trips, schedules, and more.



Completed GTFS feeds can be exported into a GTFS file that can then be imported into TransLoc's Fixed Route software or other third-party software using GTFS data such as Google Maps. Once imported into TransLoc Fixed Route, it will perform a validation of the feed, and if

any errors are found, it will guide you to what needs attention. Once validated, details regarding the changes from the existing feed data to the new import will be presented for acceptance or rejection. If there are no integrated systems such as APCs, AVA, or signage associated with the account, the new feed can be published after all changes have been accepted. If integrations are present, a final confirmation by TransLoc support staff must be completed before publication.

With TransLoc Architect and Fixed Route software, updating GTFS data becomes so intuitive that it is easier to make route changes, increase trip frequency, or implement other necessary on-the-fly changes.

## Implementation

TransLoc can implement the system described within eight weeks. If FAST desires to implement the optional items, the timeline for implementation will change to twelve weeks. The base system timeline includes implementation, installation, training, and a testing period. This timeline assumes that FAST provides TransLoc with all necessary information and depends on several variables, such as receiving comprehensive vehicle information promptly and flexible installation hours.

### Implementation Team

We prioritize client success through professional implementation services and excellent in-house client support. Implementation is one of the most critical stages and is vital to getting your transportation system up and running. TransLoc's implementation team is a group of talented, experienced individuals committed to providing our clients with the best possible service from the beginning to the end of the implementation phase. This team comprises an Implementation Specialist and a Hardware Specialist, who the Customer Support Team backs.

TransLoc's implementation specialists are responsible for delivering our clients' scope of services. They oversee all aspects of software setup, hardware configuration, and installation. FAST's implementation specialist will provide client support and facilitate training sessions for your staff during the system implementation phase. All TransLoc's implementation specialists are cross-functional partners who work with team members from the hardware, product, and other departments within TransLoc. Their primary goal will be to ensure the city receives timely and efficient delivery of their scope of services.

Hardware technicians are key members of almost every client implementation phase. TransLoc's hardware technicians travel nationwide to install and configure clients' hardware, including rigorous on-site testing to ensure all hardware is at peak performance after installation. Hardware technicians also provide client support while on site. As experts in our hardware, they can provide troubleshooting guidance and other technical information, such as training for client mechanics, fleet managers, or other staff on hardware usage, hardware locations within the vehicle, and troubleshooting tips for said hardware. After implementation, TransLoc hardware technicians will help by answering technical questions, guiding staff through troubleshooting, and installing replacement hardware or add-ons if required.

TransLoc's client support (CS) team is the backbone of all client relationships, ensuring your transit services' success post-launch. Our CS team is a collaborative effort from various support staff specializing in service design, technical solutions, and optimizing your operations. These support team rockstars will be FAST's advocates and work to ensure you and your staff receive the best possible client experience. Client service and support is part of TransLoc's primary service and comes at no additional cost for any contract type or length. Any TransLoc clients can expect continuous client support services.

TransLoc understands that communication is essential to the implementation process. TransLoc's standards for communication include emails, phone calls, and video conferencing with the client team, depending on client preference. The TransLoc team also offers a weekly cadence to check in with clients via phone and email to ensure all stakeholders are on the same page throughout the implementation process.

## Implementation Process

TransLoc's implementation process has six holistic phases, taking us from project kickoff through the project's overall acceptance and the launch phase.

### Phase 1: Project Kickoff

During the Project Kickoff Phase, the Implementation Plan is created and customized to the specifications of FAST's project. The Plan identifies the tasks necessary to complete the project and assigns responsibility. Subsequent phases will commence once both parties agree to the Implementation Plan.

#### Task 1: Kickoff Meeting

During the kickoff meeting, TransLoc and FAST will make introductions, overview the implementation process, clarify each party's roles and responsibilities, confirm the scope of work, refine the project timeline, determine the weekly project status meeting schedule, and assign initial tasks to responsible parties. TransLoc will then add the weekly project status meetings to the calendar.

#### Task 2: Finalize Project Requirements

All parties must understand and agree to the complete project requirements, accomplished during the kickoff call and documented via the Implementation Plan. This task is complete once all parties agree to any changes, updates, or modifications to the scope of work.

#### Task 3: Develop the Project Timeline

TransLoc and FAST will discuss the overall project timeline and launch date during the kickoff call and document the final timeline in the Implementation Plan. The project timeline will assign estimated completion dates to each task in the Implementation Plan, serving to track progress throughout the project. This task is complete once all parties have accepted the timeline.

### Phase 2: Data Collection and Operational Review

In this phase, TransLoc will work closely with the city to gain a solid understanding of your transit operations. Nuances about FAST's operations will be discussed, and both parties will agree on resolution plans for how TransLoc's system will address necessary refinements.

#### Task 1: Interview Key Agency Stakeholders

TransLoc needs to understand FAST's existing operations to ensure the successful implementation and continued use of the TransLoc solution. Interviews with dispatchers and administrative staff ensure the TransLoc solution fits the city's operational environment. This task is complete after the virtual interviews are concluded and documented.

#### Task 2: Document Existing Conditions

Following the interviews with staff, TransLoc will document the key takeaways from the interviews with agency personnel to ensure they understand the city's operations. Any discrepancies between the existing processes and the TransLoc solution will be highlighted. If discrepancies are discovered, both parties will

discuss them and agree upon a resolution for each. This task will be complete once all parties agree to the resolutions for any discrepancies.

#### Task 3: Collect Existing Operational Data

Many pieces of information are required from FAST to build the TransLoc software system. While most of this data may already exist in the General Transit Feed Specification (GTFS) format, some manual data entry may be required. This task is complete after all the necessary transit data has been provided or created.

### **Phase 3: System Configuration**

During the System Configuration Phase, TransLoc will configure the software and hardware solution according to the data provided by FAST in the previous phase.

#### Task 1: Configure the Agency's Live TransLoc Environment

TransLoc will create and configure the software solution to meet the requirements laid out in the scope of work. At the close of this task, your new site will be ready to go live.

#### Task 2: Configure and Ship Hardware

TransLoc will configure and ship the required hardware to support your software solution in accordance with the scope of work. This task is complete once the city has received its hardware and is ready for installation.

### **Phase 4: Installation**

During the Installation Phase, the in-vehicle equipment is provided and installed on the vehicles. As installations are completed, vehicles will be brought into the TransLoc system. (The installation and training phases may occur concurrently.)

#### Task 1: Identify Equipment Installation Locations

It is essential to gain a solid understanding of the FAST fleet to make appropriate installation preparations. TransLoc has extensive experience installing in most vehicle types; however, depending on the project requirements and pre-existing in-vehicle hardware, adjustments to where new equipment is installed may need to occur. This task will wrap up with a complete Pre-Installation Requirement document.

#### Task 2: Develop the Installation Plan

The Installation Plan describes the activities and resource requirements during the project's vehicle installation and hardware activation phase. It will include schedules for when vehicles will be made available for installations, personnel availability, personnel schedule requirements, the scope of the installation, and the process for confirming work completed. Once the installation plan is agreed upon, TransLoc will schedule the installation on-site visit.

#### Task 3: Install and Activate the In-Vehicle Equipment

When the scheduled on-site date arrives, FAST personnel must be available to sign off on each vehicle, acknowledging that installations have been completed as agreed upon. This task is complete once all vehicles' hardware is installed and activated, and the vehicle installation checklist is complete.

### **Phase 5: Training**

With the system up and running in a controlled environment, training will commence in preparation for the launch date. TransLoc provides a train-the-trainer format where key personnel are trained on the use and operation of the system. These personnel are then tasked with training the remainder of the organization or any newer hires. TransLoc

will work with the Client to identify the individuals and groups within the organization that should receive the initial training to ensure all required parties understand the use and operation of the TransLoc system.

#### Task 1: Produce Training Agenda and Materials

TransLoc works hard to ensure proper training is provided to the correct departments. As a result, training sessions are tailored to specific job functions. The job functions and attendees of each training session will be determined in collaboration with FAST. This task is complete once the city's trainers have been identified and the training is scheduled.

#### Task 2: Train the Trainers

Part of a successful implementation is ensuring FAST has champions within the organization who are passionate about their jobs and the technology's impact on the organization and its riders. These are ideal candidates for the trainer role as they will instill excitement and enthusiasm in the rest of the staff. Once all training sessions have been completed, this task will be completed.

#### Task 3: Deliver Post-Training System Guide

Upon completion of training, TransLoc will provide all training materials, including the recording of each training and any presentations used during training. TransLoc will also provide a post-training system guide that trainers or other agency staff can refer to if they have questions about the system or need a refresher about something covered during the training. This task is completed after the training materials have been provided to all relevant staff, including trainers.

### Phase 6: Launch

TransLoc will provide remote support for the solution during the Launch Phase. Any new issues identified must be disclosed to TransLoc using the non-conformance options provided previously so that a resolution plan may be developed. The conclusion of this phase signifies the completion of the implementation process.

#### Task 1: Launch

Throughout the implementation process, your Implementation Specialist will signal the completion of key project milestones via the Project Completion Checklist. When all items are checked off, the system is considered ready to launch, meaning all tasks from the previous phases have been completed. This task is completed once FAST receives the Project Launch Notification.

#### Task 2: Post-Launch Support

Once the solution is live for the city's riders, TransLoc's implementation specialist will provide remote support for at least two weeks post-launch. If no issues are raised, the project will be considered complete, and FAST will be transitioned to TransLoc's Support Team, closing out this task.

## Training

TransLoc provides training before system launch to ensure staff are proficient with the system's use. Training sessions are recorded and provided to clients for refresher courses or new hires.

### Front End Service/Software Training: Public Site, Mobile App

*Estimated Time/Delivery: 30-Minute Virtual MS Teams Training*

#### Public Site

- Public facing map



- Route view toggle
- Accessing Vehicle ETAs
- Accessing Service Announcements
  - High priority, low priority announcements
- Route schedules
- Feedback – UserVoice
- Favorites – Routes and stops
- Take a Tour Feature

#### **TransLoc App**

- Sharing Location Data
  - Requirement for TransLoc Mobile App to identify local transit services
- View Nearby Routes & Stops
- Select a Route & View Schedules
- Stop & Route Announcements
- Arrival Notifications & Favorite Stops
- The “Me” Tab
- Feedback – UserVoice
- Favorites – Routes and stops
- Search Destinations & Plan Your Trip
- Hide Agency Visibility

### **Back-End Service/Software Training: Secure Site, Vehicle Tracking, Dispatching Features**

*Estimated Time/Delivery: 1-Hour Virtual MS Teams Training*

#### **Logging in**

- How to Log In
- Sharing access to your secure site
  - i.e., (*yourdomain.transloc.com/secure*)

#### **Dispatch Screen**

- Overview of Dispatch Screen
- When logging in to the secure site, i.e. (*yourdomain.transloc.com/secure*), your dispatch dashboard will not appear populated by default – we will build one using selectable widgets to fit your service needs.
  - Widgets include:
    - Live Map
    - Dispatch By Route
    - Dispatch By Block
    - Stops
    - Vehicles
- How to Dispatch
  - To assign “By Schedule”, locate the route and/or block in the list and click on the vehicle drop-down next to it.
  - Select the desired vehicle from the drop-down list and click on it.
  - The vehicle assignment will take effect depending on the block start/stop times and stay in place until it is manually changed.
- Delaying Vehicles

- To the right of the route dropdown is a bus icon. If this icon is clicked on it will put all vehicles on delay.
- This will be seen by the end user.
- Schedule Adherence (If client purchased Schedule Adherence Integration)

### Vehicle Tracker/Instant Replay Viewer

- Accessing the Vehicle Tracker
  - Click on the black MENU button on the Dispatch panel. This will redirect you to the admin page for the secure site.
  - Click on Vehicle Tracker in the menu list—you will be redirected to a new website.
  - A login box will appear - enter the login information supplied at training.
    - NOTE: This site requires a separate username and password than the public site.
- Checking Live Vehicle Status
- Viewing Historic Vehicle Tracks and Instant Replay
- Viewing Live and Historical Vehicle Speeds
- Finding AVL Equipment Information

### Admin Functions

- Posting Messages/Alerts
  - In the dispatch screen, click the MENU button and select Messages. Messages posted to the system will display on the bottom of the home page of the public website and inside the mobile app. The messaging console will display. Add a message: Click the “+” button and enter the text of the message along with the Start Date and End Date of the message. Check the “Highlight” box to display the message’s text in red.
- Editing a Message
  - Once a message has been posted you will see it in the grid. You can edit the message by clicking on the message and then click on the pencil icon to the right of the “+” button. Make the appropriate edits.
- Deleting a Message
  - Select the message to be deleted from the grid. The message will turn yellow. Click on the trash can icon to delete the message. If you are sure you want to delete the message, click **Yes** when asked for confirmation to delete the message.
- Viewing Inactive/Deleted Messages
  - Click on the Show Inactive checkbox to see messages that have not yet reached the Start Date of the message or are past the End Date. Click the Show Deleted checkbox to see any messages that have been deleted.
- Adding Employees
  - Click on **Employees**. From there, click on **New**. Fill in the employee information. The Username can be anything that differentiates one employee from another such as 518 or “kwright” (first initial, last name). Employee type is always set as a **System** type. Passwords are not needed for driver users. Click **Insert**. This will add the new employee to your system.
- Editing/Maintaining Access to Secure Site
  - For anyone that needs access more than view only click on **Rights**. Select the desired access level you want to grant the user, and then select **Add**.
- User Guides
  - PDF and Recorded Overview/Guides will be shared with client’s designated contacts.

## Hardware Troubleshooting – AVL, Driver Tablets

*Estimated Time/Delivery: No Virtual Training, Troubleshooting and Setup Guides provided to designated contact*

### AVL

- Pepwave wiring diagram and troubleshooting/installation guide, troubleshooting 1-page PDF

### DAPC/Driver Tablet

- Tablet and Driver App Troubleshooting guide

## Reporting – Ridership Reports, Performance Reports, Filtering and Exporting Data

*Estimated Time/Delivery: 30-Minute Virtual MS Teams Training*

### Accessing Reports

- To access system reports, click on the Reporting tab on the Dispatch ribbon located on the top of the Secure Site.

### General Reports

- *Arrivals and Departures (By Route and Stop):* Vehicle arrival/departure times by route and stop.
- *Arrivals and Departures (By Route and Vehicle with Loop Time):* Same as above but adds a Loop Time field for routes that operate as a loop.
- *Employee Assignments:* Which employees are assigned to which route.
- *Headway:* Time between vehicles arriving at a stop (can select multiple stops and routes).
- *Headway Summary:* Will show averages only and will only show charts.
- *Route\_Report:* This gives the user a snapshot of the route information in the Ride Systems database. It includes stop names, Latitude and Longitude.
- *Vehicle On Route:* This is a ‘moment in time’ report. This report shows what bus is assigned to what route right now.
- *Vehicle\_Assignment\_Report\_Ver2:* This is a historical report showing what vehicle was assigned to which route on the date and time entered in the criteria settings.

### Performance Reports

- *On Time Performance:* Schedule adherence for each vehicle on a route. Percent on time, early, and late. Based on parameters you set when you run the report.
- *On Time Performance Summary:* Same as above but doesn’t show as much detail. It only provides a higher-level overview.
- *Schedule By Time Report:* All schedules TransLoc has entered the database for each day of the week.
- *Schedule Report:* This report returns a snapshot of the schedules TransLoc has entered into our database for your service.

### Ridership Reports (Passenger Counter Integration Required)

- *All Ridership by Vehicle:* APCs for each vehicle over a period of time.
- *Average Ridership:* Average APCs for each route over a month (summary, detailed, and calendar view).
- *Passenger Miles:* Passenger miles (the cumulative sum of the distances ridden by each passenger) by route. Agency must provide miles for this report.
- *RAW APC Audit Report:* Unedited APCs - includes the driver getting on/off the vehicle and passenger counts on vehicles that aren’t tracking.
- *Raw Ridership:* Same report as above w/ more information, such as the name of the APC device and latitude/longitude.
- *Ridership Counts - Daily:* APCs by route with daily counts.
- *Ridership Counts - Hourly:* APCs by route with hourly counts.

- *Ridership Counts by Date and Hour with Summary*: APCs by route with daily and hourly counts.
- *Ridership Report Ver1\_9*: Same as the summary reports but allows you to select up to 5 categories from route, driver, date, time, stop, criteria, or vehicle. Can also add DAPCs.
- *Ridership Summary Report*: APCs by route, stop, time of day, or vehicle. Allows addition of DAPC criteria.
- *Ridership Summary Report With 2 Groupings*: Same as above but you select two from route, stop, time of day, or vehicle.
- *Ridership Summary Report With 3 Groupings*: Same as above but you select three from route, stop, time, counter, time interval, date, actual time, criteria, or vehicle.
- *Ridership Summary Report With 3 Groupings and detail group*: Same as above but you can select 3 criteria as well as a 4th more detailed criterion.
- *Ridership Summary Report With 4 Groupings*: Same as above but you to select four from route, stop, time, counter, time interval, date, or vehicle.
- *Ridership with Occupancy*: Summary of APCs and DAPCs by a specific time block (e.g., 20 minutes).
- *Weekly Summary*: Very high-level weekly APCs summary.

## TransLoc Architect – Accessing GTFS Feed, Creating, Editing, and Saving Changes

*Estimated Time/Delivery: 1 Hour Virtual MS Teams Training*

### Accessing TransLoc Architect

- *Architect.transloc.com*
- Login with agency-specific credentials.

### Uploading GTFS Feed Data

- In your TransLoc Fixed-Route Secure Site navigate to Reporting -> GTFS File -> Start Download
- Upload the GTFS feed to TransLoc Architect
  - Drag and drop your recently downloaded feed from (*subdomain.transloc.com/secure*)
  - Once upload is complete – you can access and edit your feed

### Add New Routes, Trips, Patterns, Stops, Etc.

- Select your feed, labeled, “**GTFS Import (Upload Date)**” to access service information
- Selecting the vertical three-dot menu (⋮) on the right of the feed to download or share the feed.

### Redrawing and editing route patterns

- Click on the feed you want to edit
- To create a new route, you will start by naming the

### Saving and Exporting Changes to TransLoc Fixed-Route

- Return to the “All Feeds” menu
- Select the vertical three-dot menu (⋮) on the right of the feed to download or share the feed.
- Return to (*subdomain.transloc.com/secure*)
- Select **Configuration** from the navigation ribbon at the top of the home page
- Drag and drop your updated GTFS file into the GTFS Validator Tool to submit your updated feed.

### TransLoc Fixed-Route GTFS Validator Tool

- Correcting GTFS validation errors (if applicable), by returning the file to *Architect* to update, save, and attempt validation again.

### TransLoc Architect User Guides

- PDF and Recorded Overview/Guides will be shared with client’s designated contacts.

## Support

TransLoc offers best-in-industry customer service and support as part of its basic service at no additional cost for any contract type or length. Any TransLoc client can expect U.S.-based emergency phone support 24/7/365 and live support during business hours from **8:00 A.M. to 8:00 P.M EST**, excluding regular business holidays. In an emergency, TransLoc will provide **twenty-four (24) hours a day, seven (7) days a week** telephone assistance.



TransLoc’s **support team** can help with data (route changes, service updates), software (trouble logging in, technical issues), adding or decommissioning vehicles, requesting a quote, and additional information on other software solutions, products, and more. FAST will also be assigned an individual to be your Client Success Manager (CSM). This dedicated CSM will develop an in-depth relationship with the city and will meet with city representatives on a regular cadence, cover any new features or functionality, and be able to provide necessary training materials

When our clients call for support, we can usually resolve the situation immediately. However, if we are not able to offer a solution immediately, we generally classify and prioritize the level of customer support needed accordingly:

Priority	Priority Description	Response Target	Nature of issue
<b>Critical</b>	Service Unusable in Production	2 Business Hours	The error causes most of the service to be down and unusable, resulting in total work disruption or another critical business impact. No workaround is available.
<b>High</b>	Service Use Severely Impaired	4 Business Hours	The error causes significant feature/function failure and severely restricted operations. A workaround is available.
<b>Medium</b>	Service Use Partially Impaired	1 Business Day	The error causes minor feature/function failure, which has a minor impact on usage. An acceptable workaround has been deployed.
<b>Low</b>	Service Fully Usable	3 Business Days	Minor errors or requested enhancements such as general information, documentation errors, and software modification requests.

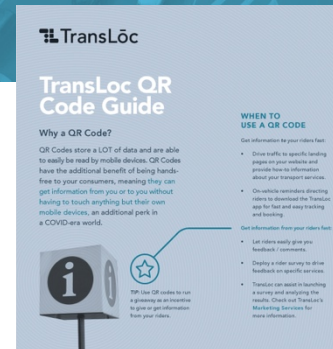
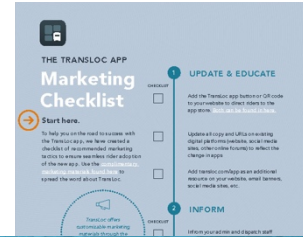
TransLoc provides updates or patches to its software on an infrequent basis. TransLoc notifies clients of any updates that may affect the end user, and we perform updates during non-peak usage hours, usually during the very early morning hours on Sundays.

Toll-free customer service is always available, and when necessary, TransLoc offers web meetings to resolve or explain issues more thoroughly. Customers can reach the support and sales teams at their designated emails. There is no additional cost for emergency after-hours or weekend customer support. TransLoc can support transit staff through the remote configuration of the hardware. We can remotely complete set-up, updates, and other needed system configurations without significant transit staff involvement.

## Marketing

TransLoc recognizes that marketing is vital to educating and informing riders to ensure the success of your service. This understanding is at the heart of our commitment to assisting with your marketing efforts. New customers will receive a starter marketing package as part of the implementation process. We're here to help you get the word out about your services and the TransLoc app! TransLoc's free marketing assets include:

- **TransLoc Rider App Logos** - TransLoc rider app logos in a variety of colors, optimized for digital & print formats
- **QR Code** - QR Code leading to the TransLoc Rider App
- **QR Code Best Practices Guide** - Guide for using QR codes to make your information accessible for riders
- **Marketing Checklist** - Recommended marketing tactics to ensure seamless rider adoption of the new app
- **Flyers & Posters** - Sample promotional materials that can be updated as needed
- **Marketing Launch Guide** - List of recommended marketing tactics to ensure seamless rider adoption of the new app and services
- **Landing Page Guide** - how-to guide for landing pages



To access TransLoc's free marketing assets, visit the following link to learn more: <https://transloc.com/marketing-resources/>.

Additionally, TransLoc provides a frequently asked questions page for the TransLoc Rider Application here: <https://transloc.com/app/>.

## 5. Required Hardware and Software

### Peplink MAX BR1 Mini Router

Vendor Supplied

The Peplink MAX BR1 Mini Router is the central hub for several transit services, such as GPS tracking (SIM Card included), Wi-Fi, and a communication device for APCs. This router is hardwired into the vehicle and serves a multi-purpose function supporting TransLoc's hardware integrations.

### Samsung Galaxy Tab Active5 Tablet (Optional)

Vendor Supplied/Vendor Recommended 'off-the-shelf' Equipment

If desired, TransLoc offers a Mobile Data Terminal (MDT) for drivers, which runs the Driver Mobile Application. If the agency wishes to incorporate an MDT, TransLoc provides Samsung Galaxy Tab Active5 tablets. The tablet's rugged design works in the harshest environments and can withstand splashes, dust, drops, and extreme temperatures. Its display is shielded by resilient Corning® Gorilla® Glass and can be safely sanitized.

### TransLoc Onboard Controller (OBC) (Optional)

Vendor Dedicated Hardware

The Onboard Controller (OBC) is a small computer placed onto a bus that provides local computing power for services that can take place on the bus. This device offers the agency an extra level of protection to ensure that even when there may be a disruption in internet connectivity, the onboard systems, such as automated voice announcements and vehicle signage, will function normally. The OBC also provides remote diagnostic capabilities, providing TransLoc information on how the onboard systems function and allowing for a quicker response time to resolve any potential issues.

### TransLoc Automated Voice Announcements (AVA) Box (Optional)

Vendor Dedicated Hardware

The Automated Voice Announcements (AVA) box connects to the Onboard Controller (OBC) and the vehicle's PA system. The OBC sends audio to the AVA box to play through the PA system. The AVA box will pause announcement playback when it detects a driver speaking over the microphone, and once the driver finishes, the automatic announcements will resume.

### Xovis Germany (formerly Hella Aglaia) APS Hardware (Optional)

Vendor Supplied/Vendor Recommended 'off-the-shelf' Equipment

The Xovis Germany automatic passenger counting (APC) units utilize advanced 3D imaging technology to accurately detect passenger directional entry and exit movement. Our clients consistently experience best-in-market boarding and alighting accuracy between 98% and 99%, a testament to the reliability and precision of our system. The units transmit passenger counting data in real-time, enabling administrators to make informed decisions promptly. The APC units also have the unique ability to be remotely adjusted or configured for optimal performance without disrupting vehicle service.

### Software

TransLoc is proposing its Fixed Route software package for FAST. The package includes access to TransLoc Fixed Route, a CAD/AVL system that provides real-time information; GPSGate, a vehicle tracking interface used to view granular data regarding the vehicle fleet being tracked; and TransLoc Architect, a complimentary GTFS editing software. These are the only required software to implement TransLoc's solution.

## 6. Conflict of Interest Statement

TransLoc has no known conflicts of interest to declare.





OnDemand  
& Safe Ride



Fixed Route  
Bus Transit



All-in-One  
Mobile App



Professional  
Services

 **TransLoc**

# Products & Services 2024 Catalog

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OnDemand  
& Safe Ride

Since 2004, TransLoc has delivered transportation software services to transit agencies, major airports, municipalities, universities, and medical centers in the US and Canada.



Fixed Route  
Bus Transit

**TransLoc's Fixed Route** solution streamlines your dispatching with a scalable platform, and empowers your riders with an intuitive mobile app. One solution, better rides for everyone.



All-in-One  
Mobile App

**TransLoc's OnDemand** solution enables passengers to ride with confidence. Our app connects users with safe ride services, tracks their trips in real-time, and lets them know exactly when their ride arrives.

Comprehensive reporting for both solutions enables you to track on-time performance, arrivals and departures, ridership, and vehicle history. We also offer fully managed GTFS services.

We partner with leading vendors to provide a complete ecosystem of transit solutions for our customers.



Professional  
Services

In 2022, TransLoc joined the Modaxo family of companies that deliver technology and solutions that move people worldwide every day. We share Modaxo's commitment to delivering software and technology solutions that connect people with the places they need to be with universally accessible, equitable and sustainable transportation.



OnDemand  
& Safe Ride



Fixed Route  
Bus Transit



All-in-One  
Mobile App



Professional  
Services

# OnDemand & Safe Ride

 **TransLoc**

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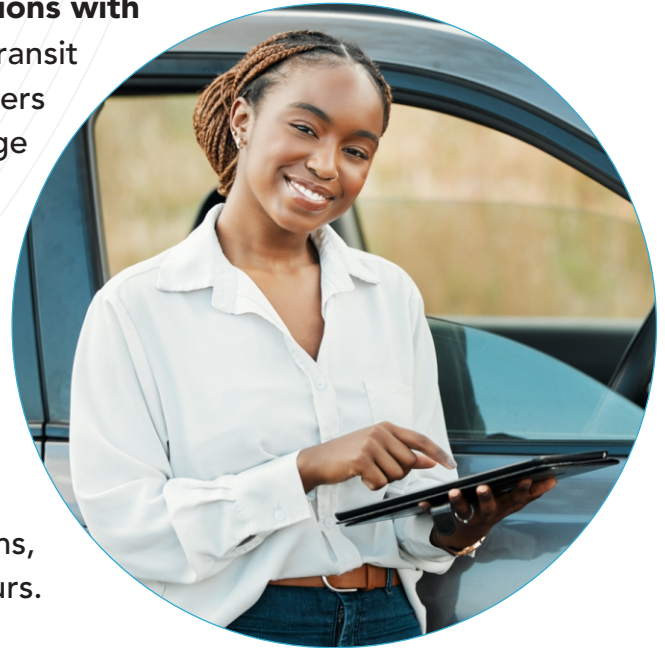


## OnDemand & Safe Ride

**Empower your riders and optimize your operations with TransLoc OnDemand**, our all-in-one on-demand transit solution. It provides a seamless experience for riders while equipping you with powerful tools to manage your service effectively. Here's how:

### Enhanced Rider Safety & Convenience

- Riders hail on-demand rides or schedule trips in advance through our user-friendly mobile app.
- Real-time GPS tracking keeps riders informed and fosters trust.
- We integrate with after-hours Safe Ride programs, ensuring rider safety beyond regular service hours.



### Streamlined Operations & Efficiency

- Our system automates dispatching and routing, optimizing vehicle usage and reducing costs.
- The driver's app on tablets simplifies managing walk-up riders and no-shows.
- Leverage Google Maps technology for accurate navigation and efficient trip planning.

### Connecting Your Network & Informed Decisions

- This solution seamlessly connects to existing area transit options, providing riders with a comprehensive network.
- User-friendly reporting tools deliver valuable insights to help you tailor your services and meet ridership needs.
- We offer optional integrated fare payments, streamlining the rider experience.

**By addressing safety, efficiency, and effectiveness, our on-demand solution empowers you to provide a superior transit service for your riders.**



✓ Cities & Transit Agencies  
✓ Healthcare Systems

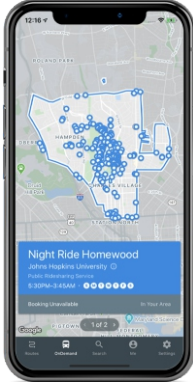
✓ Universities  
✓ Airports

✓ Corporate Campuses  
✓ Operator Partners

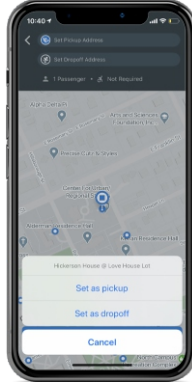


## OnDemand & Safe Ride

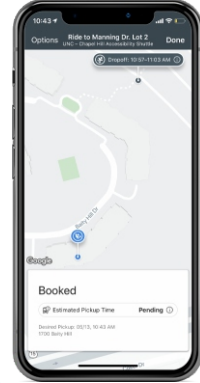
### Rider Experience



Rider selects pick-up location by dropping a pin or choosing from a custom list of options.

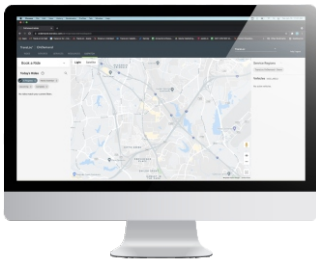


Rider selects drop-off location by dropping a pin or choosing from a custom list of options.

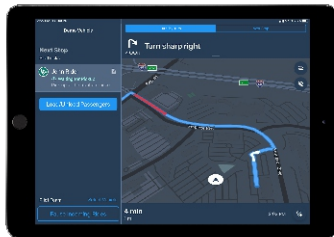


Rider provides basic trip information and awaits pick-up.

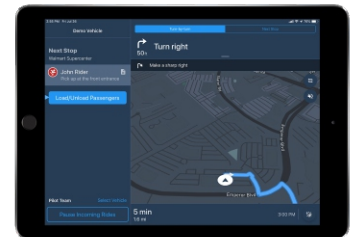
### Dispatcher & Driver Experience



Dispatcher monitors pending, in-progress, and completed rides with the ability to schedule call-in ride requests. OnDemand will automatically dispatch and add the route to the driver system.



Once a request is assigned, drivers are automatically notified and dispatched.



Driver uses GPS tech to complete rider pick-ups and drop-offs, with the ability to process walk-up riders and no-shows.



OnDemand  
& Safe Ride



Fixed Route  
Bus Transit



All-in-One  
Mobile App



Professional  
Services

## Fixed Route



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## Fixed Route Bus Transit

Serve all corners of your community with **TransLoc Fixed Route**, our flexible fixed-route transit solution. It streamlines your dispatching with a scalable platform, and empowers your riders with an intuitive mobile app. One solution, better rides for everyone. Here's how:

### Enhanced Rider Safety & Convenience

- On-board stop announcements, digital signage, notifications, and service alerts keep riders in the loop
- Real-time GPS tracking shows exact bus location so riders can time their stop arrival and easily make connections.

### Streamlined Operations & Efficiency

- Modular dashboard provides fast access to ETAs, vehicle capacity, and on-time performance.
- Add hardware and technology as you need it, including automated passenger counters and voice annunciation, badge scanning, and digital signage.



### Connecting Your Network & Informed Decisions

- One intuitive, accessible mobile app means your riders can access both fixed route and on demand services.
- User-friendly reports provide data insights so you can keep ahead of problems and optimize your services.

**By addressing safety, efficiency, and effectiveness, our fixed-route solution empowers you to provide a superior transit service for your riders.**

✓ Cities & Transit Agencies  
✓ Healthcare Systems

✓ Universities  
✓ Airports

✓ Corporate Campuses  
✓ Operator Partners



## Fixed Route Hardware

### CAD/AVL

**Go beyond real-time. Predict with precision.**

With the TransLoc Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system you can see every vehicle, color-coded for easy identification, update their location every 3-5 seconds on our live map.

Our **proprietary algorithm** takes this real-time data further, delivering **uncannily accurate** estimated arrival times.

Plus, the system analyzes GPS locations and schedules in real-time, allowing for **swift responses** to service disruptions, minimizing delays for everyone.



### Automated Passenger Counters

Our automated passenger counting (APC) system features the best available technology for counting riders as they board your vehicles. Automatic 3-D imaging technology makes people counting a simple, hands-free process.

- More than 95% accuracy by bus and route
- Hardware easily mounts above vehicle door(s)
- Data transmission for reporting and analysis in real time
- If you prefer manual counts, drivers can use Digital Passenger Counters (DPC) via mobile data terminals (tablets)







## Fixed Route Hardware

### Automated Voice Annunciation (AVA)

Deliver the ultimate rider experience with clear announcements about upcoming stops and destinations. Our AVA seamlessly integrates with your automatic vehicle location (AVL) system.



- Create custom messages triggered by geo-fenced areas near specific stops using our text-to-speech function
  - AVA hardware integrates with your internal speaker system
  - TransLoc's proprietary On Board Controller (OBC) unit powers the AVA system
- Internal signs can be connected to your AVA system adding visual stop and route information

### On Board Controller (OBC)

The TransLoc proprietary OBC connects all your bus hardware to one simple device to give your riders a seamless onboard experience. The OBC provides hardware monitoring, enhanced real-time GPS, and keeps AVA and signage running even if the bus loses cellular connection for a short time. Providing unparalleled remote hardware diagnostics and support that you need to keep your system running smoothly.



### On-Board Wifi

Riders use smartphones and tablets for everyday tasks, like email, social media, and video streaming. You can enhance your riders' experience by adding on-board Wifi access with a 100MB daily allotment per device/user.



## Fixed Route Hardware



### Digital Signs

Keep your riders informed about real-time vehicle location information and estimates with custom display monitors.

- Internal destination signs display stops and play stop arrivals and departures
- Wayside signs at a stop or terminal
- Lobby signs at an internal stop or terminal
- Headway signs at the front and/or rear of a bus indicating which route the bus is running

### Badge Scanners

We're committed to the security of your riders and have made it simple to integrate security access checkpoints on your vehicles. Our system can integrate with our GPS system to provide real-time validation of those authorized to ride the bus.

When a badge is scanned, the associated card number is logged. That information is provided in a detailed report that includes card number, location, and boarding time.





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## Mobile App



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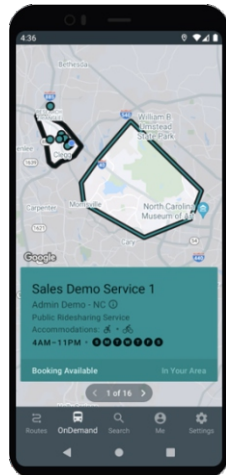
## All-in-One Mobile App

TransLoc's mobile app is the only transit app with both fixed-route and on demand services, giving your riders more choice and your service more reach. It's a multilingual and WCAG 2.0 AA accessible mobile application that allows riders to schedule, track, pay, and receive service notifications directly on their smartphones.



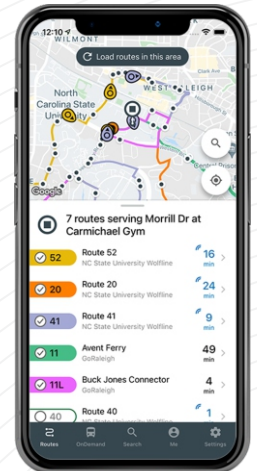
### On Demand Features

- Single interface allows passengers to book and track their rides
- Real-time tracking and vehicle arrival notifications
- In-advance ride scheduling
- Re-book recurring trips with ease
- Proprietary algorithm automatically groups rides, balancing ride time and wait time for riders across the system



### Fixed Route Features

- Real-time tracking and vehicle arrival notifications
- See vehicle capacity
- Receive dynamically suggested routes based on location
- See ETAs and scheduled arrival times
- Access critical details from the route and stop alerts
- Favorite bus stops for quick access
- Arrival alerts



✓ Cities & Transit Agencies  
 ✓ Healthcare Systems

✓ Universities  
 ✓ Airports

✓ Corporate Campuses  
 ✓ Operator Partners



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Bus Transit



All-in-One  
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Professional  
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## Professional Services



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## Professional Services

**COMING MID-2024**

### Managed GTFS

From mobility apps to LCD screens at stops and stations, TransLoc's Managed GTFS service enables you to easily and accurately get your fixed route service information into the hands of your riders. Letting us manage your feed also allows you to meet FTA's new NTD requirements for GTFS submission, without worrying about compiling and submitting the data on your own.



### Key Features

- Creation of a static GTFS file
- Integration of your GTFS file with Google Maps, including all communications with Google and necessary adjustments
- Validation of GTFS file to ensure it contains all required data
- Changes and updates to your GTFS files at your request
- Distribution of validated GTFS files to other 3rd parties (e.g., regional partners or other mobile applications)
- Ongoing troubleshooting, management, and maintenance of your GTFS files
- 24/7 access to your GTFS files

✓ Cities & Transit Agencies

✓ Healthcare Systems

✓ Universities

✓ Airports

✓ Corporate Campuses

✓ Operator Partners



OnDemand  
& Safe Ride



Fixed Route  
Bus Transit



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Mobile App



Professional  
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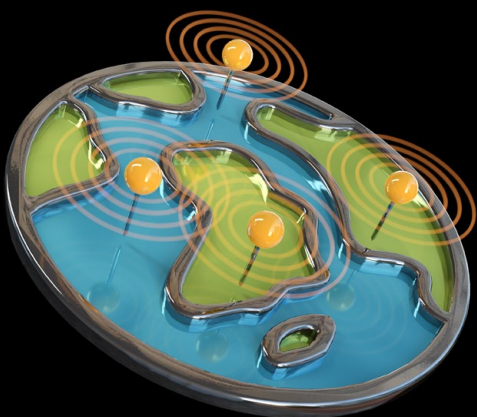
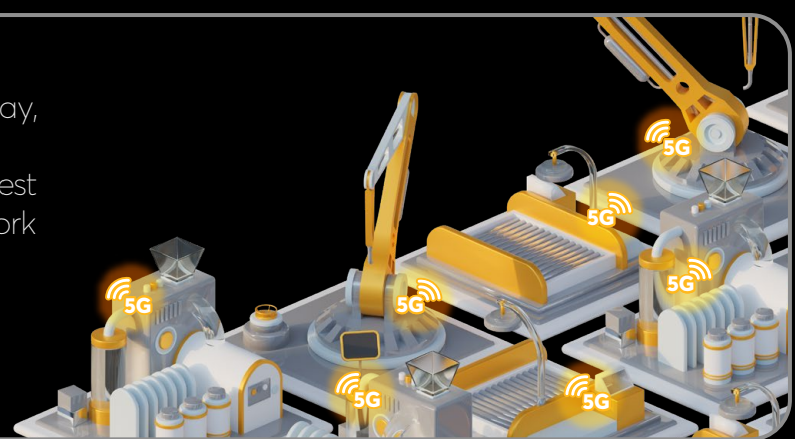
[www.TransLoc.com](http://www.TransLoc.com)



## BR1 Mini 5G

Affordable, Long-lasting 5G for Mass Deployments

4G connectivity might work fine today, but the switch to 5G is inevitable. Futureproof your network with the latest 5G technology, and keep your network running for many years to come.



### A single SKU for global deployments

Extensive list of compatible 5G/LTE bands. Native 5G NSA and SA mode support.

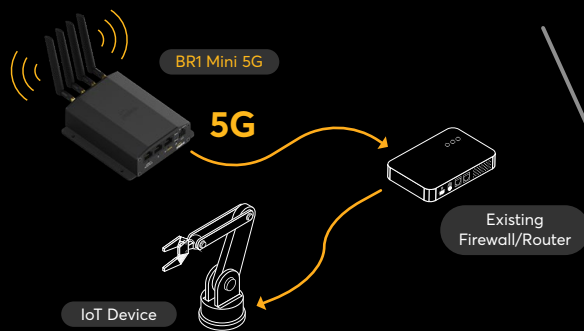
### Private 5G Support

Adding devices to your Private 5G network is no longer a hassle. Integration can be as simple as plug and play.

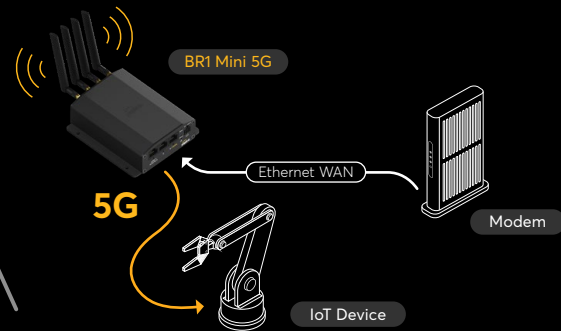




► **5G Adapter**



► **Gateway/Router**



Have an existing network? Add the **BR1 Mini 5G** as a **5G adapter** with zero hassle. Need something more? The device can also act as a **gateway/router** for multiple WANs.

Stay in touch with **InTouch**

Access connected devices, like sensors and cameras, with **out of band management** at 5G speeds.



Monitor your entire network from a single screen

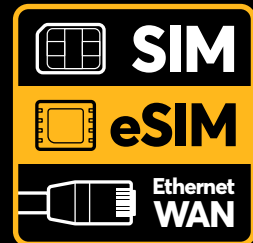
Remotely access your Peplink devices' web admin with **InControl2**, our cloud-based endpoint management system. Generate reports and push configurations for more **effective management**.

## ► Key BR1 Mini 5G Benefit

An exceptionally reliable, rugged 5G Cellular Router that connects your data and Internet applications - wherever they are.

### #1 Future-proof Connectivity

With the latest cellular LTE and 5G via **SIM** or **eSIM** and a second optional **Ethernet WAN**, the BR1 Mini 5G connects your Ethernet devices with up to 300Mbps throughput.



### #2 Ruggedized and Reliable

Built in a **rugged & reliable metal case** with **fanless, ventless design** certified for shock and vibration resistance for deployment virtually anywhere.



### #3 Designed for Remote Operation

With central management via Peplink **InControl2** and local device management via Peplink **InTouch**, the BR1 Mini saves time and reduces field visits.



## ► Use Cases



POS



IoT, Kiosk, Remote Surveillance

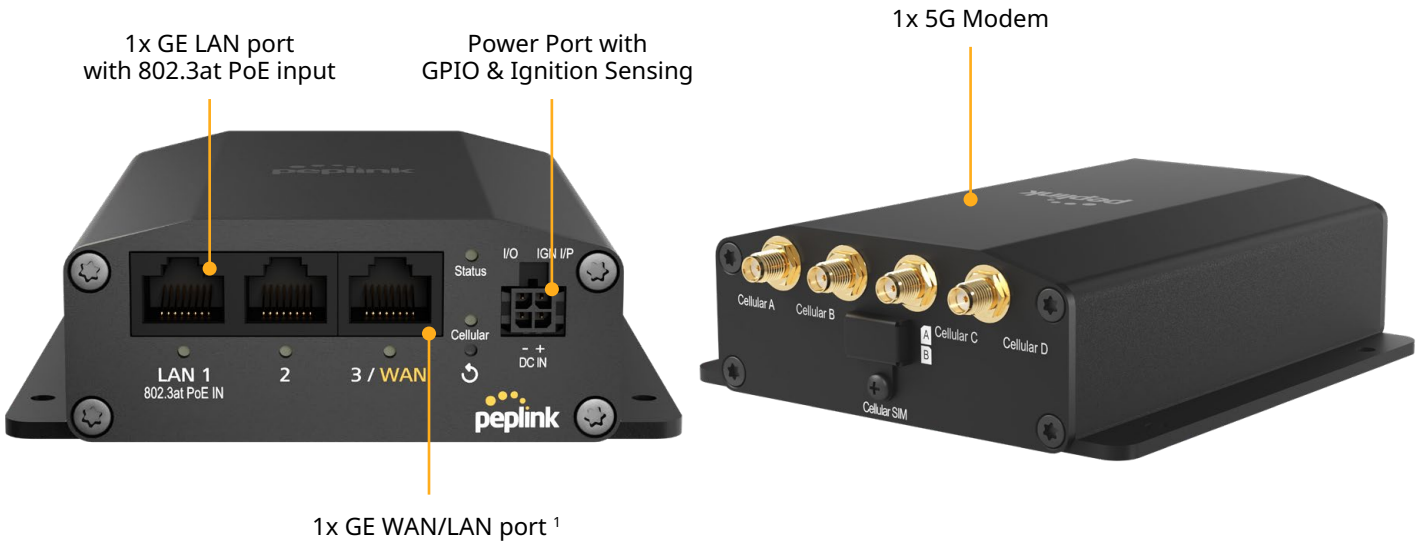


Mobility



Remote Work

# BR1 Mini 5G



## Specifications

<b>WAN Interface</b>	1x 10/100/1000M Ethernet <sup>1</sup> 1x Embedded Cellular Modem with Redundant SIM Slots	<b>Antenna Connectors</b>	4x SMA Cellular Antenna Connectors
<b>LAN Interface</b>	2x 10/100/1000M Ethernet	<b>Power Input</b>	Power Port: 10V – 30V DC AC Adapter: AC Input 100V–240V / DC Output 12V Power over Ethernet 802.3at
<b>SpeedFusion features</b>	Hot Failover <sup>1</sup> / Smoothing <sup>1</sup> / Bandwidth Bonding <sup>1</sup>	<b>Power Consumption</b>	11W (nominal) , 13W (max.)
<b>Number of SpeedFusion VPN Peers</b>	2 / 5 <sup>1</sup>	<b>Dimension</b>	5.0 x 4.2 x 1.4 inches / 125.7 x 107 x 35 mm
<b>Router Throughput</b>	300 Mbps	<b>Weight</b>	0.93 pounds / 420 grams
<b>SpeedFusion VPN Throughput - No Encryption</b>	80 Mbps	<b>Operating Temperature</b>	-40° – 149°F / -40° – 65°C
<b>SpeedFusion VPN Throughput - 256-bit AES</b>	20 Mbps / 60Mbps <sup>1</sup>	<b>Humidity</b>	15% – 95% (non-condensing)
<b>Recommended Users</b>	1-60	<b>Certification</b>	FCC, CE, RoHS EN 61000 Electromagnetic Compatibility EN 45545-2 Railway applications - Fire protection <sup>3</sup>
<b>Cellular Data Rate <sup>2</sup> (Downlink/Uplink)</b>	5G: 3.4 Gbps / 900 Mbps CAT-20: 1.6 Gbps / 200 Mbps	<b>Package Content</b>	1x BR1 Mini 5G 4x LTE/5G Antennas (ACW-235) 1x 12V 2A 4pin Power Supply (ACW-632)
		<b>SIM Options</b>	Nano-SIM (4FF) Peplink eSIM BYO eSIM (2 profiles)
		<b>Warranty</b>	1-Year Limited Warranty

<sup>1</sup> Require a PrimeCare subscription or a feature pack add-on license (MAX-BR1-MINI-LC-FP).

<sup>2</sup> Maximum theoretical data rate.

<sup>3</sup> Certification Pending.

Specifications are subject to change without notice.

## Ordering Information

Product Code	Regions <sup>^</sup>	5G Bands	LTE Bands
MAX-BR1-MINI-5GN-T-M-PRM Embedded Modem(s): 1x 5G	Global*  *US Carrier Certifications: AT&T, T-Mobile, Verizon (C-Band), FirstNet	<b>5G (NSA &amp; SA) Sub 6Ghz:</b> n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71

<sup>^</sup> Regions are for reference only. For specific location compatibility, please refer to the bands.

## Featured Add-on

Product Code	Description
PRM-A-1Y / PCP-A-1Y	PrimeCare A / PrimeCare+ A (1-Year)
PRM-A-2Y / PCP-A-2Y	PrimeCare A / PrimeCare+ A (2-Year)
PRM-A-4Y / PCP-A-4Y	PrimeCare A / PrimeCare+ A (4-Year)
MAX-BR1-MINI-LC-FP	Feature pack for BR1 Mini enables Ethernet WAN, Hot Failover, Smoothing, Bandwidth Bonding
MAX-BR1-MINI-BD-FP-2Y	MAX BR1 Mini Bundle Offer - 2 year PrimeCare+ extension & complimentary feature pack
MAX-BR1-MINI-BD-FP-4Y	MAX BR1 Mini Bundle Offer - 4 year PrimeCare extension & complimentary feature pack
MAX-BR1-MINI-BD-FP-PLUS-2Y	MAX BR1 Mini Bundle Offer - 2 year PrimeCare+ extension & complimentary feature pack
MAX-BR1-MINI-BD-FP-PLUS-4Y	MAX BR1 Mini Bundle Offer - 4 year PrimeCare+ extension & complimentary feature pack
ACW-634	10ft DC Power Cable
ACW-DIN-BR1-MINI	DIN Rail mount kit
ANT-SLM-40G-S-B-6	Slim 40G - 4x4 MIMO 5G Ready Cellular Antenna System with GPS (Black)
ANT-MB-40G-S-W-6	Mobility 40G - 4x4 MIMO 5G Ready Cellular Antenna System with GPS (White)
ANT-MB-40G-S-B-6	Mobility 40G - 4x4 MIMO 5G Ready Cellular Antenna System with GPS (Black)

## Deep Dive

<b>Software</b>	Pepwave MAX Firmware	<b>Advanced QoS</b>	Individual Bandwidth Limit Application Prioritization <ul style="list-style-type: none"><li>• SIP, HTTPS, VPN QoS</li><li>• Custom Application QoS</li></ul>
<b>WAN</b>	Support for PPPoE, Static IP, DHCP WAN Link Health Check Bandwidth Allowance Monitor Support for Dynamic DNS services WAN Port Convertible into LAN Port	<b>Networking</b>	NAT and IP Forwarding Static Routes Port Forwarding Many to One, One to One NAT NAT Pool SIP ALG, H.323 ALG UPnP, NAT-PMP
<b>LAN</b>	DHCP Server for LAN Clients Extended DHCP Option DHCP Reservation DNS Proxy for LAN Clients VLAN on LAN Support	<b>Captive Portal Support</b>	Support for Wired LAN clients Support RADIUS Authentication Time and Usage Quotas on Open Access Mode Built-in Customizable Splash Page
<b>Security</b>	Stateful Firewall DoS Prevention Web Blocking	<b>Device Management</b>	Web Administrative Interface Command Line Interface InControl Cloud Management Email Notification Active Client & Session Lists Bandwidth Usage Statistics Syslog Service SNMP v1, v2c and v3
<b>Complete VPN Solution</b>	SpeedFusion VPN <ul style="list-style-type: none"><li>• Site-to-Site VPN</li><li>• Hot Failover</li><li>• 256-bit AES Encryption</li><li>• Pre-shared Key Authentication</li></ul> IPsec VPN (Network-to-Network) <sup>^</sup>		

<sup>^</sup> IPsec VPN supports connection with Cisco, Juniper, Peplink, or Pepwave devices

\*Price remains firm for 30 days

Notes	Type	Item	Item Description	Qty	Unit Price /yr (Year 1)	Capital	Subscription
<b>Fixed Route - CAD/AVL</b>							
a.	x	H-120	CAD_AVL Pepwave - Hardwire	30	\$ 625.00	\$ 18,750.00	
		P-100	Prof Svcs - Installation CAD_AVL	30	\$ 325.00	\$ 9,750.00	
		P-113	Prof Svcs - Setup Fee CAD_AVL	1	\$ 12,325.00	\$ 12,325.00	
b.	**	S-106	Subscription - CAD_AVL (public)	30	\$ 1,120.00		\$ 33,600.00
		--	Application Program Interface (API) - JSON	1	Included		
<b>Fixed Route - Realtime Passenger Information System (RTPI)</b>							
		--	Mobile Apps (iOS & Android)	1	Included		
		--	Web Apps (Desktop & Mobile Web)	1	Included		
<b>Fixed Route - Mobile Data Terminal Features **OPTIONAL**</b>							
a.	x	H-152	Tablet Samsung Galaxy Tab Active 3 - Static Mount (Fixed Route)	30	\$ 1,175.00	\$ 35,250.00	
		P-101	Prof Svcs - Installation DAPC	30	\$ 125.00	\$ 3,750.00	
		P-102	Prof Svcs - Installation Schedule Adherence	30	\$ 125.00	\$ 3,750.00	
		P-115	Prof Svcs - Setup Fee DAPC	1	\$ 3,900.00	\$ 3,900.00	
		P-116	Prof Svcs - Setup Fee Schedule Adherence	1	\$ 1,425.00	\$ 1,425.00	
	**	S-111	Subscription - DAPC	30	\$ 180.00		\$ 5,400.00
	**	S-123	Subscription - Schedule Adherence	30	\$ 70.00		\$ 2,100.00
<b>Fixed Route - Text Messaging</b>							
		P-119	Prof Svcs - Setup Fee SMS Texting	1	\$ 500.00	\$ 500.00	
		S-128	Subscription - Text Message (Fixed Route)	30	\$ 250.00		\$ 7,500.00
<b>Fixed Route - Automatic Passenger Counting (APC) **OPTIONAL**</b>							
a.	x	H-102	APC Hella APS-R 1-Door	2	\$ 1,800.00	\$ 3,600.00	
a.	x	H-103	APC Hella APS-R 2-Door	28	\$ 2,300.00	\$ 64,400.00	
		P-103	Prof Svcs - Installation APC	30	\$ 375.00	\$ 11,250.00	
		P-120	Prof Svcs - Setup Fee APC	1	\$ 10,250.00	\$ 10,250.00	
	**	S-103	Subscription - APC	30	\$ 300.00		\$ 9,000.00
<b>Fixed Route - Automated Voice Annunciation (AVA) Tablet **OPTIONAL**</b>							
a.	x	H-106	AVA Stand Alone Speakers	30	\$ 275.00	\$ 8,250.00	
a.	x	H-158	On-Board Controller	30	\$ 425.00	\$ 12,750.00	
		H-159	AVA Box	30	\$ 375.00	\$ 11,250.00	
		P-104	Prof Svcs - Installation AVA Tablet	30	\$ 375.00	\$ 11,250.00	
		P-121	Prof Svcs - Setup Fee AVA Tablet	1	\$ 6,500.00	\$ 6,500.00	
	**	S-104	Subscription - AVA	30	\$ 180.00		\$ 5,400.00
<b>Fixed Route - Digital Signage Hardware - Headsigns Integration **OPTIONAL**</b>							
a.	x	H-126	Signage Headsign Integration	30	\$ 25.00	\$ 750.00	
		P-106	Prof Svcs - Installation Headsign	30	\$ 200.00	\$ 6,000.00	
		P-124	Prof Svcs - Setup Fee Headsign	1	\$ 1,600.00	\$ 1,600.00	
	**	S-124	Subscription - Signage Headsign	30	\$ 180.00		\$ 5,400.00
<b>On-Site &amp; Virtual Trainings</b>							
		P-130	Prof Svcs - Training Workshop Virtual (Fixed Route)	1	\$ 500.00	\$ 500.00	
<b>Shipping Costs</b>							
		H-156	Shipping Charge	0	Included		

**Notes**

- a. Includes: all necessary cabling & hardware
- b. Includes: Support, Server Hosting & Licensing
- x Hardware invoiced upon shipment. Invoicing of remaining capital costs at the delivery of services.
- \*\* Subscription invoiced post go-live date
- \*\* Price subject to change with adjustments to terms, integrations, subscriptions, and vehicles.

Billing Frequency:	Annually
Payment Terms:	Net 30

Quote Summary	
First Year Capital	\$ 237,750.00
First Year Subscription	\$ 68,400.00

<b>Total for First Year</b>	<b>\$ 306,150.00</b>
Total Capital	\$ 237,750.00
Total Subscription - 3 Years	\$ 217,760.00
<b>Total for Contract</b>	<b>\$ 455,510.00</b>

\*All applicable sales/use tax are additional  
Annual Price Increase 6.0%

## 9. Delivery

TransLoc can implement the system described within eight weeks. If FAST desires to implement the optional items, the timeline for implementation will change to twelve weeks. The base system timeline includes implementation, installation, training, and a testing period.

Phase & Task	Month 1				Month 2			
	1	2	3	4	5	6	7	8
<b>Phase 1: Project Kickoff</b>								
Task 1: Kickoff Meeting	█							
Task 2: Finalize Project Requirements	█	█						
<b>Phase 2: Data Collection and Operational Review</b>								
Task 1: Document Existing Conditions		█	█					
Task 2: Collect Existing Operational Data		█	█					
<b>Phase 3: System Configuration</b>								
Task 1: Configure the Agency's Live TransLoc Environment			█	█				
Task 2: Configure and Ship Hardware			█	█				
<b>Phase 4: Installation</b>								
Task 1: Identify Equipment Installation Locations				█	█			
Task 2: Develop the Installation Plan				█	█			
Task 3: Install and Activate the In-Vehicle Equipment				█	█			
<b>Phase 5: Training</b>								
Task 1: Produce Training Agenda and Materials						█		
Task 2: Train the Trainers						█		
Task 3: Deliver Post-Training System Guide						█		
<b>Phase 6: Launch</b>								
Task 1: Launch and Post-Launch Support							█	█

## TECHNOLOGY LICENSE AND SERVICE AGREEMENT

This Technology License and Service Agreement (this “**Agreement**”) dated as of the last signature to this Agreement (the “**Effective Date**”) is by and between TransLoc Inc., a Delaware corporation, with its principal place of business located at 4505 Emperor Blvd., Suite 120, Durham, NC 27703 (“**Company**”), and **CUSTOMER NAME**, located at **ADDRESS, CITY, ST ZIP** (“**Customer**”).

### Description of Agreement

Customer wishes to access Company’s Service in accordance with the terms of this Agreement. Company wishes to make the Service and Equipment available to Customer on the terms and conditions described in this Agreement. Therefore, the parties agree as follows:

#### 1. Definitions.

- 1.1. “**Activation Date**” means when the Software is available to Go Live.
- 1.2. “**Affiliates**” means an entity that owns, is owned by, or is under common ownership with a party, in each case where ownership is direct and is greater than 50%.
- 1.3. “**Confidential Information**” means any non-public information or data whether in written, electronic, or other tangible form, or provided orally or visually, that is disclosed by or on behalf of one party (a “**Disclosing Party**”) to the other party (a “**Receiving Party**”), whether owned by the Disclosing Party or a third party, pursuant to this Agreement. Confidential Information of Customer includes, but is not limited to, Customer’s financial and business information. Confidential Information of Company includes, but is not limited to, the terms of this Agreement; the structure, organization, design, algorithms, methods, templates, data models, data structures, flow charts, logic flow, and screen displays associated with the Software and the Service; the Documentation; and Company’s pricing, sales, proposals, implementation, and training materials, and procedures. Confidential Information does not include information that: (a) is or becomes publicly known or available without breach of this Agreement; (b) is received by a Receiving Party from a third party without breach of any obligation of confidentiality; or (c) was previously known by the Receiving Party as shown by its written records.
- 1.4. “**Day(s)**” means calendar day(s), unless otherwise specified.
- 1.5. “**De-Identified Data**” means data that does not contain information that identifies Customer or Users.
- 1.6. “**Documentation**” means any instructional and user manuals relating to the Service, which may be amended from time to time by Company.



- 1.7. **“Equipment”** means Company’s tracking hardware, antennas, cabling, wiring and other electronic components provided and installed by authorized Company personnel on Customer’s Vehicle Fleet, to allow the functioning, delivery or maintenance of the Software.
- 1.8. **“Fees”** means the Subscription Fee and cost of any equipment.
- 1.9. **“Go Live”** means the time at which the Software is available for use.
- 1.10. **“Initial Term”** means a **period of three (3) years** from the Activation Date.
- 1.11. **“Project Manager”** means an employee of Customer, designated to be responsible for and aware of Customer’s (and if applicable, any third party brought in by Customer’s) business and systems information and needs. Project Manager will be the lead point of contact for all matters involving Customer and Company.
- 1.12. **“Service”** means Company’s Software and any services and deliverables identified in Exhibits A and B, as applicable.
- 1.13. **“Service Data”** means any data, information, content, documents, or electronic files provided to or collected by Company from either Customer or its Users during the course of their use of any component of the Service.
- 1.14. **“Software”** means (1) Company’s proprietary vehicle tracking and passenger information Service provided through proprietary software made available in combination with Equipment for use in the management, location, and inventory of Customer’s transportation resource; and (2) any of Company’s proprietary software, solutions, or technologies identified in Exhibits A and B of the Agreement, including but not limited to white label applications.
- 1.15. **“Term”** means the Initial Term plus any Renewal.
- 1.16. **“Users”** means the actual and prospective passengers on Customer’s transit system.
- 1.17. **“Vehicle Fleet”** means the multi-passenger vehicles comprising Customer’s transit system, on which the Equipment is installed in accordance with this Agreement.

## 2. Software, Service, and Equipment.

- 2.1. Subscription. Subject to payment of the Fees and the remaining terms and conditions of this Agreement (including, without limitation, the use requirements, restrictions and limitations described in Section 6.1), Company hereby grants to Customer a limited, revocable, non-exclusive, and non-transferable right to access and use the Software and the Documentation during the Term at the physical location of Customer as stated herein. Company will make the Documentation available to Customer in electronic form.
- 2.2. Implementation and Training.

- 2.2.1. System Information Sheet. Customer will complete the System Information Sheet no later than thirty (30) calendar days following receipt of the System Information Sheet from Company, which includes stops, routes, blocks, vehicle information, and other relevant information needed to create Customer's Service.
- 2.2.2. Pre-Installation Requirement Form. Customer will complete, if applicable, the Pre-Installation Requirement Form no later than fourteen (14) calendar days following receipt of the Pre-Installation Requirement Form from Company.
- 2.2.3. Project Management. Within five (5) calendar days of the Effective Date of the Agreement, Customer shall provide a Project Manager that Company will work with through to project completion. Company will also provide a project manager who will coordinate resources internally.
- 2.2.4. Additional Materials and Documents. Company and Customer will cooperate to ensure that all applicable forms and documents necessary for implementation of the Service are completed within a reasonable timeframe.
- 2.2.5. Definition of Service Area. Customer shall provide Company with the physical bounds of their intended Service area upon request from Company. This information can be provided either in a series of latitude and longitudes that correspond to the vertices of a contiguous shape, a radius (in miles or kilometers) from a single latitude and longitude, or a list of all the roadways and intersections that form the outer-edges of the service area.
- 2.2.6. Customer Delays. In the event Company incurs delays, additional costs or labor as a result of any act or omission of Customer, including but not limited to Customer's failure to provide information, data, or access to Customer's facilities or personnel, Customer agrees that Company may, upon prior written notice to Customer, add reasonable charges to the amounts invoiced to Customer and adjust any implementation schedule provided to Customer.
- 2.3. Vehicle Fleet administrators will receive instructional materials and training to use the Service.
- 2.4. Software, Support and Maintenance.
  - 2.4.1. Base Level Support. Company will provide email and telephone support for the Software to assist Customer personnel in using the Service and in reporting suspected deviations from the Service and the associated Documentation ("**Errors**"). Support will be provided from 8:00 a.m. to 8:00 p.m. Eastern Time, Monday through Friday, excluding regular business holidays. Only in the event of an emergency, Company will provide twenty-four (24) hours a day, seven (7) days a week telephone assistance.

- 2.4.2. Maintenance. Company will use reasonable efforts to correct suspected Errors when such Errors are reported to Company. Company does not warrant that all Service Errors will be corrected.
- 2.4.3. TransLoc Architect. Notwithstanding the foregoing, Base Level Support for TransLoc Architect (“Architect”) that is not obtained in conjunction with TransLoc’s Fixed Route Service, will consist of up to four (4) support tickets per year beginning as of the Activation Date. Every support ticket submitted for Architect in excess of the Base Level Support noted in this section 2.4.3. will be charged to Customer at a fee of one hundred fifty dollars (\$150) per ticket.
- 2.5. Equipment. Company will make available for Customer to purchase certain hardware Equipment as part of the solution for integration with Company’s Software. Customer agrees to purchase, and hereby purchases from Company, and Company agrees to sell, and hereby sells to Customer, the Equipment as specified in Exhibit A.
- 2.6. Software Upgrades. Company will provide upgrades to Software (“**Upgrades**”) that Company generally makes available to its other licensees for no additional charge. Customer acknowledges that Upgrades include only point releases that improve or maintain the stability of the Service and do not include major releases that add new functionality, which may be available for an additional fee. In the case where Company provides new features to Customer at no charge, the continued availability, performance, or usefulness of such features are not guaranteed or warranted by Company and such new features may be revoked at any time. Customer acknowledges that some newly integrated features in future releases of the Company Software may require the purchase of the appropriate hardware upon which the features depend.

If Company is no longer providing one or more Services, or in the event that a Service goes end-of-life, Company may, replace the Service in accordance with the terms of this Agreement with a functional equivalent; provided, that any such functional equivalent shall have substantially similar features and functions as the Service it is replacing and shall reasonably meet or exceed the specifications and other requirements prescribed by this Agreement for the Service, and upon such replacement in accordance with this Section, such replacement Service shall be considered a Service for the purposes of this Agreement. To the extent necessary, Company and Customer shall amend any applicable statement of work to reflect such replacement of Service.

- 2.7. Route & Map Updates. Company will add the existing stops, schedules, or routes during the initial implementation with information provided by Customer. After the initial Implementation, to ensure that updates are implemented within the requested effective date, Company request that updates be submitted two (2) weeks in advance of the desired effective date.

- 2.8. Modification of Customer's Physical Location. If Customer expands or modifies its physical location, Customer may be required to purchase additional hardware and/or Software licenses and/or services to enable the Service to function properly in the expanded, additional, or modified physical location. Such purchases shall be agreed to in writing by executing additional amendments.
- 2.9. Professional Services. Customer and Company may modify Exhibit B or enter into one or more statement of works subject to this Agreement, which may incorporate one or more service descriptions for the provision of professional services. Company will perform the professional services, subject to the fulfillment of any responsibilities and payments due from Customer, as stated in the applicable exhibit.
3. Fees and Payment.
- 3.1. Subscription Fees. The rates for the Service are identified in Exhibit A. The Subscription Fees, subject to Section 3.4 below, will commence on the Activation Date, and will continue for the Term. Subscription Fees are paid annually in advance, upon the Activation Date.
- 3.2. Cost of Equipment. The cost of Equipment is identified in Exhibit A.
- 3.3. Payment, Taxes and Procedures. Company will invoice Customer for Fees. Customer shall pay Company in accordance with payment terms set forth below:
- 3.3.1. Fees are payable in U.S. dollars only and are due no later than thirty (30) days after the invoice date. Fees are nonrefundable.
- 3.3.2. Payments shall be delivered to the address indicated on the invoice, unless otherwise instructed by Company.
- 3.3.3. Late payments shall be subject to interest at the monthly rate of one percent (1%), or the maximum amount allowed by applicable law, if lower. Interest on late payments will be calculated from the date when payment becomes overdue until the date payment is received by Company. Company may suspend the Service if the Subscription Fee is not received by the due date. If Company suspends the Service for non-payment, Customer may be charged a fee for reinstatement of the Service.
- 3.3.4. Customer shall pay Company's costs of collecting amounts past due under this Agreement, including reasonable attorneys' fees.
- 3.3.5. Prices do not include applicable state and local sales, use and other taxes. Customer is responsible for such taxes or shall provide proof of tax exemption.
- 3.3.6. Customer must provide written notice of any disputed invoice and/or Fees owed to Company within ninety (90) days of receipt of such invoice.

3.4. Fee Increase. Company shall, upon each anniversary of the Effective Date during the Term, increase Fees six percent (6%) upon written notice to Customer. Any increase greater than six percent (6%) shall be preceded by sixty (60) days written notice or a discussion with Customer.

4. Term and Termination.

4.1. Term. This Agreement begins on the Effective Date and will remain in effect for the Initial Term. The Agreement will automatically renew for additional successive one (1) year periods (each a “**Renewal**”) unless either party provides written notice to the other party at least one hundred twenty (120) days before the end of the Term.

4.2. Termination for Breach. Either party may terminate this Agreement if the other party materially breaches any of the terms and conditions of this Agreement and it is not cured:

4.2.1. Within ten (10) days after written notice if the breach relates to payment of Fees; or

4.2.2. Within thirty (30) days after written notice for any other breach.

4.3. Effect of Termination or Expiration.

4.3.1. Upon termination or expiration of this Agreement for any reason, (i) the Customer’s license for Company and right to access and use the Service automatically terminates, and (ii) the Customer’s right to receive, view and/or access the Service Data automatically terminates. Termination of this Agreement does not relieve Customer of its obligation to pay monies due to Company.

4.3.2. Should this Agreement be terminated before the end of the Term, for any reason other than Company breach, Customer must pay all current, outstanding, and remaining Fees for the remainder of the Term. Fees are due no later than thirty (30) days from the effective date of termination of the Agreement.

4.4. Survival. The terms provided in Sections 5, 6, 7, 8, and 9 of this Agreement survive any termination or expiration of this Agreement.

4.5. Service Decommissions. Customer may not decrease their Service subscription count during the Term. Upon not less than one hundred twenty (120) days before the end of the Term, Customer must provide written notice to Company should Customer require fewer Service subscriptions during the Renewal. For avoidance of doubt, Customer may at any time during the Term, pursuant to an amendment to this Agreement, purchase additional Service subscriptions.

5. Warranties and Disclaimer of Company.

- 5.1. Equipment Base Warranty. In the event any third-party Equipment is provided to Customer hereunder, either as part of the Services or as necessary or incidental to Company's provision of Services (including hosting services), Company shall pass through to Customer any and all representations, warranties and covenants from such third party providers, in addition to any representations, warranties and covenants provided by Company in this Agreement. Such warranties may be voided as the result of Customer's negligence, willful misconduct, or if caused by an action under Section 5.4.
- 5.2. Professional Services Warranty. Company represents and warrants that the professional services will be performed in a workmanlike manner consistent with industry standards.
- 5.3. Exclusive Remedy. Customer's exclusive remedy for breach of related warranties in this Sections 5 shall be that Company will use commercially reasonable efforts in endeavoring to resolve and cure any such breach.
- 5.4. Warranty Limitations. Company is not responsible for failure of the Service to conform to the Documentation or to provide accurate information with respect to the location, time, status, availability or existence of Customer's Vehicle Fleet if the Equipment is (i) damaged, blocked, modified, disassembled, vandalized, destroyed, or interfered with; (ii) subjected to extreme temperatures, flooding, over-voltage, electrical surges, misapplication of electrical power, or caustic chemicals; (iii) improperly installed or maintained by Customer or any third party; or (iv) used for a purpose other than as intended by Company, including but not limited to use in a configuration not recommended by Company.
- 5.5. Additional Fees. Company requires that installation or re-installation of all Equipment be performed by Company or a third-party expressly authorized by Company. In the event Company has to repair, modify, or replace any component of the Equipment due to Customer's improper installation, additional fees shall incur.
- 5.6. Disclaimer. EXCEPT AS EXPRESSLY PROVIDED HEREIN, COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTIES ARISING FROM TRADE USAGE OR COURSE OF DEALING. IN ADDITION, THE SERVICE DEPENDS UPON DATA BEING TRANSMITTED OVER THE INTERNET, CUSTOMER'S NETWORK, GPS SATELLITES, AND THIRD-PARTY CARRIER NETWORKS, AND AS COMPANY HAS NO CONTROL OVER THE FUNCTIONING OF THE INTERNET, THE SERVICE IS OFFERED ON AN "AS-AVAILABLE" BASIS. COMPANY DOES NOT WARRANT THAT THE SERVICE WILL OPERATE UNINTERRUPTED OR ERROR-FREE.

- 5.7. Excluded Parties. Company represents that it has no knowledge that any prospective business partner, employee, subcontractor or supplier is included in the General Services Administration's (GSA's) List of Parties Excluded from Federal Procurement and Non-Procurement Programs.
  - 5.8. Lobbying Disclosure Act. Company represents that it has no knowledge that any prospective business partner, employee, subcontractor or supplier is in violation of the Lobbying Disclosure Act of 1995.
  - 5.9. Non-Discrimination. Company represents that it does not discriminate against any employee or applicant for employment because of race, religion, creed, national origin, age, gender, marital status, citizenship, disability, sexual orientation, veteran's status, or membership in any other protected group.
6. Warranties and Acknowledgement of Customer.
- 6.1. Use Requirements, Restrictions and Limitations. Customer represents that it will observe the following requirements and restrictions in connection with its access to and use of the Service:
    - 6.1.1. Customer shall not reverse engineer, de-compile or disassemble the Software or Equipment, shall not attempt to access any data underlying the Software or circumvent the user interface or other technological measures put in place by Company, and shall not modify, access, download, copy, or interfere with the Equipment or its embedded software without the express consent of Company.
    - 6.1.2. Customer shall not rent, sell, assign, lease, or sublicense the Service. Customer shall not use the Service in a service bureau, outsourcing or other arrangement to process or administer data on behalf of any third party.
    - 6.1.3. Customer shall not knowingly access, store, or transmit via the Service any material that (i) is unlawful, harmful, threatening, defamatory, obscene, infringing, harassing or offensive; (ii) facilitates illegal activity; (iii) is discriminatory; or (iv) causes damage or injury to any person or property.
    - 6.1.4. Customer shall not violate or attempt to violate the security of Company's networks, including (i) accessing data not intended for Customer; (ii) accessing a server or account which Customer is not authorized to access; (iii) attempting to scan or test the vulnerability of a system or network or to breach security or authentication measures; or (iv) attempting to interfere with the availability or functionality of the Services, including by means of submitting a virus, overloading, flooding, spamming, mail bombing or crashing.
    - 6.1.5. Customer shall cause each of Customer's employees, agents and independent contractors to comply with (i) the obligations set forth in this

Section 6.1 and (ii) all applicable laws, rules and regulations in connection with their use of the Service.

6.1.6. Company reserves the right, without liability to Customer, to disable Customer's or a User's access to the Service for breach of this Section 6.1.

6.2. Customer acknowledges and agrees:

6.2.1. That the Service is an information tool only and is not a substitute for competent management and oversight of Customer's Vehicle Fleet, transportation system, and personnel;

6.2.2. That the Service depends upon data being transmitted over the internet, Customer's network, GPS satellites, and third-party carrier networks, and that, Company has no control over the functioning of the internet, Customer's network, GPS satellites, or the network of a carrier; and

6.2.3. That Customer alone is responsible for acquiring and maintaining Customer's Vehicle Fleet, Customer's network, Customer's internet access, and the rest of Customer's physical and technological infrastructure; and

6.2.4. That Customer's cooperation is required for the timely delivery of the Service, and, as a result, Customer will promptly respond to Company's requests and inquires and cause its Project Manager (or any applicable representative) to cooperate with Company, in good faith, to complete the implementation of the Service and troubleshoot any issues with the Service.

6.3. International Roaming. The Equipment may transmit and receive data without user intervention and, as a result, will generate international roaming charges when it is taken out of the United States. Customer alone is responsible for roaming charges.

7. Confidentiality and Ownership.

7.1. Intellectual Property. Company is the sole and exclusive owner of all rights, title and interest in and to the Service, including all updates, modifications, customizations, enhancements and other derivative works thereof (collectively "**Derivative Works**"), and in any and all copyrights, patents, trademarks, trade secrets and other proprietary and/or intellectual property rights therein or thereto. To the extent any Derivative Work is developed by Company based upon ideas or suggestions submitted by Customer to Company, Customer hereby irrevocably assigns all rights to modify or enhance the Service using such ideas or suggestions or joint contributions to Company, together with all copyrights, patents, trademarks, trade secrets, and other proprietary and/or intellectual property rights related to such Derivative Works. Nothing contained in this Agreement shall be construed to convey to Customer (or to any party claiming through Customer) any rights in or to the Service, other than the rights expressly granted in Section 2.1.



- 7.2. Trademarks. Customer hereby consents to use of Customer's name and/or logo a) on Company's website in order to direct end-users to the public-facing aspects of the Service; b) to create a Customer-specific public-facing website hosted by Company where Users may access the Service; and, c) in the event Company's white label application is included as part of the Service, to create a Customer-branded application.
- 7.3. Ownership of Data. Customer acknowledges and agrees that, as between Customer and Company, Company retains all ownership right, title and interest in and to all Service Data, including all copyrights, patents, trademarks, trade secrets, and other proprietary and/or intellectual property rights therein or thereto. Company may analyze and compile Service Data for the purpose of creating De-Identified Data. Company may use the De-Identified Data without restriction and may combine the De-Identified Data with data from other sources to create aggregate statistical data.
- 7.4. Nondisclosure.
- 7.4.1. A Receiving Party (a) shall hold the Disclosing Party's Confidential Information in strict confidence and will use the same degree of care in protecting the confidentiality of the Disclosing Party's Confidential Information that it uses to protect its own Confidential Information, but in no event less than reasonable care; and (b) except as expressly authorized by this Agreement, shall not, directly or indirectly, use, disclose, copy, transfer or allow access to the Confidential Information. Notwithstanding the foregoing, a Receiving Party may disclose Confidential Information of the Disclosing Party as required by law or court order. In such event, the Receiving Party shall (i) use its best efforts to inform the Disclosing Party before any such required disclosure, and (ii) provide reasonable assistance, at the Disclosing Party's cost, if the Disclosing Party wishes to contest the disclosure.
- 7.4.2. The Customer shall limit access to the password-protected portions of the Service and any Equipment to Customer's employees who have a legitimate need to access the Service and Equipment.
- 7.4.3. Upon the termination or expiration of this Agreement, or upon the request of the Disclosing Party, the Receiving Party will return to the Disclosing Party all the Confidential Information delivered or disclosed to the Receiving Party, together with all copies in existence thereof at any time made by the Receiving Party.
- 7.4.4. If Customer receives a public record request for Confidential Information, Customer shall notify Company and Company shall, within fifteen (15) business days (or within the maximum period allowed by applicable law), notify Customer whether it desires for the Confidential Information to be withheld, and provide a legal basis under the applicable Public Records Act for withholding the Confidential Information. If Customer withholds the

Confidential Information pursuant to Company's request, Company shall indemnify and defend Customer from any and all costs or liabilities resulting from such withholding including, but not limited to, attorney fees and court costs. If Company fails to notify Customer within the time specified or to provide a legal basis for withholding of the Confidential Information, Company agrees that Customer shall be entitled to release and disclose the Confidential Information.

7.5. Remedies. Each party acknowledges and agrees that any violation of this Article 7 (Confidentiality and Ownership) may cause irreparable injury to the other party for which there would be no adequate remedy at law and, therefore, such other party shall be entitled to preliminary and other injunctive relief against the other party for any such violation. Such injunctive relief shall be in addition to, and in no way in limitation of, all other remedies or rights that the parties may have at law or in equity.

8. Indemnity and Liability.

8.1. Customer Indemnity. Only to the extent permitted by law, Customer shall indemnify and hold Company and its Affiliates and their respective officers, directors, shareholders, employees, agents, successors and assigns harmless from any and all claims that relate to Customer's or Users' use of or reliance upon the Service or Customer's failure to properly maintain (or to request maintenance of) the Equipment, except any claims for which Company Indemnifies Customer as described in Section 8.2.

8.2. Company Intellectual Property Infringement Protection.

8.2.1. If a third party claims that the Service provided to Customer by Company under this agreement infringes that party's United States patent or copyright, Company shall defend Customer and Customer's Affiliates against that claim and shall pay any losses, liabilities, damages, judgments, awards, expenses, and costs, including reasonable attorneys' fees that a court finally awards against Customer, provided that Customer (i) promptly notifies Company of the claim and (ii) permits Company to control and cooperates with Company in the defense and any related settlement negotiations. Customer may participate, at Customer's own expense, in the defense of such claim.

8.2.2. If any part of the Service is, or in Company's reasonable judgment may become, the subject of any such proceeding Company may, at its expense and option, do one of the following: (i) procure for Customer the necessary right to continue using the Service and Equipment; (ii) replace or modify the infringing portion of the Service or Equipment with a functionally equivalent non-infringing item or portion thereof, or (iii) if none of the foregoing are commercially reasonable, terminate Customer's right to use the Service or the affected portion thereof, and refund to Customer an

amount equal to the prepaid Subscription Fee or the affected portion thereof and the cost of any equipment, less amortization for its use on a straight line basis over a period of five (5) years from the Effective Date. The preceding sets forth Company's only obligations and Customer's sole and exclusive remedies with respect to infringement or misappropriation of intellectual property rights.

8.2.3. Company will not be liable hereunder for any claim of infringement that is based upon (i) the combination of the Service, or any part of the Service, or the Equipment with any product, software, hardware, machine, or device which is not provided by Company or identified by Company in its specifications as necessary to operate the Service, (ii) any modification of the Service or Equipment by a party other than Company, or (iii) the use of a version of the Service other than a current, unaltered release of the Service if such infringement would have been avoided by the use of a current, unaltered release.

8.3. Limitation of Liability. EXCEPT WITH RESPECT TO CLAIMS ARISING FROM OR RELATING TO (i) THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF COMPANY OR (ii) DAMAGES ARISING FROM OR RELATING TO BODILY INJURY (INCLUDING DEATH) OR DAMAGE TO REAL OR TANGIBLE PERSONAL PROPERTY CAUSED BY COMPANY IN THE PERFORMANCE OF SERVICES UNDER THE AGREEMENT: NEITHER PARTY WILL BE LIABLE FOR ANY INDIRECT, SPECIAL, EXEMPLARY, CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT (INCLUDING, WITHOUT LIMITATION, ANY DAMAGES FOR LOST PROFITS OR LOSS OF DATA OR BUSINESS INTERRUPTION), WHETHER ARISING FROM NEGLIGENCE, ERRORS, OR FAILURE OF PERFORMANCE, EVEN IF COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION UPON DAMAGES AND CLAIMS SHALL APPLY WITHOUT REGARD TO WHETHER OTHER PROVISIONS OF THIS AGREEMENT HAVE BEEN BREACHED OR HAVE PROVEN INEFFECTIVE.

8.4. Damages. IN NO EVENT SHALL COMPANY'S AGGREGATE LIABILITY FOR ALL CLAIMS UNDER THIS AGREEMENT, WHETHER ARISING IN CONTRACT, TORT OR ANY OTHER LEGAL THEORY EXCEED AN AMOUNT EQUAL TO THE FEES PAID BY CUSTOMER OR CUSTOMER'S AFFILIATE IN THE SIX (6) MONTH PERIOD PRECEDING THE ACT GIVING RISE TO THE CLAIM FOR DAMAGES.

9. General Provisions.

9.1. Notices. Any notice permitted or required under this Agreement may be delivered in person, by registered or certified mail (postage prepaid), by recognized overnight delivery service, or by e-mail to the party's address identified below (or other address designated by a party by written notice that conforms to this section).

Notice will be deemed effective upon personal delivery, on the day after deposit for overnight delivery, three days after deposit by registered or certified mail, upon receipt if by email, when receipt is acknowledged by the receiving party.

If to Company:  TransLoc, Inc. 4505 Emperor Blvd, Ste 120 Durham, NC 27703	If to Customer:  _____ Attn: _____ _____  Email: _____
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- 9.2. Compliance with Laws. Each party will comply with all applicable federal, state and local laws, ordinances, rules and regulations relating to the performance and use of the Service as set forth in this Agreement.
  
- 9.3. Ineligibility. Company will not knowingly contract with, purchase from, employ, sub-contract with or carry on business in any form with any person or entity that is officially listed as excluded, debarred, declared ineligible, suspended or otherwise ineligible for participation in any Federal or State program.
  
- 9.4. Assignment. Neither party may assign or otherwise transfer any of the rights and obligations arising out of this Agreement without the prior written consent of the other party, except in connection with the sale or transfer of all or substantially all of such party's business, whether by merger, sale or otherwise. Notwithstanding the foregoing, however, Customer's consent shall not be required for assignments of this Agreement in whole or in part that result from a merger or acquisition, provided the contract is assigned to an affiliate of Company or an entity under common control with Company or Company's corporate parent.
  
- 9.5. Governing Law. This Agreement shall be construed in accordance with and governed by the laws of the state where the Customer is physically located as stated in this Agreement, without reference to any choice of law principles of such state, and will not be construed in accordance with or governed by the United Nations Convention for International Sales of Goods.
  
- 9.6. Arbitration. Any controversy or claim arising out of or relating to this Agreement, with the exception of injunctive relief sought by either party, may be submitted to arbitration before an arbitrator agreed upon by the parties, or, if the parties cannot agree upon an arbitrator within thirty (30) days, to an arbitrator selected by the American Arbitration Association. Arbitration shall occur in the capital of the state specified in Section 9.5. The arbitration shall be conducted under the rules then prevailing of the American Arbitration Association. The arbitrators may award attorneys' fees and costs as part of the award. The award of the arbitrators shall be binding and may be entered as a judgment in any court of competent jurisdiction.

- 9.7. Force Majeure. Except for payment obligations, neither party will be liable or responsible for any failure or delay in the performance of its obligations due to causes beyond the reasonable control of the party affected or its subcontractors or suppliers, including but not limited to war, sabotage, insurrection, epidemics, earthquakes, terrorism, riot or other act of civil disobedience, strikes or other labor shortages, accident, fire, explosion, flood, hurricane, severe weather or act of God. The obligations of the party suffering from the force majeure event will be suspended for the duration of the force majeure.
- 9.8. Integration. This Agreement, together with the exhibits, constitutes the final and exclusive agreement between the parties as to the matters described in it. This Agreement supersedes all prior proposals, negotiations, conversations, discussions, understandings, representations, or agreements between the parties concerning its subject matter. Without limiting the generality of the foregoing, Company will not be bound by any standard or printed or referenced terms produced by Customer, including but not limited to terms included or referenced in any of Customer's purchase orders. In the case of disagreement in the terms and conditions between this Agreement and any of its Exhibits, this Agreement shall control.
- 9.9. Amendment and Waiver. This Agreement may only be modified in writing signed by both parties and identifying the provision of the Agreement that is to be amended. No delay or omission by either party in exercising any right or remedy under this Agreement or existing at law or equity shall be considered a waiver of such right or remedy. No waiver by either party of any right or remedy whether under this Agreement or otherwise shall be effective unless in writing.
- 9.10. Severability. If any term, provision or condition of this Agreement is held to be invalid or unenforceable, the other provisions of this Agreement will be unimpaired and the invalid or unenforceable provision will be deemed modified so that it is valid and enforceable to the maximum extent permitted by law.
- 9.11. Promotion Rights. No public statements concerning the existence or terms of this Agreement will be made or released to any media except with the prior approval of both parties or as required by law. With Customer's prior approval, approval of which will not be unreasonably withheld by the Customer, Company may publicize its relationship with Customer for marketing and promotion purposes, which may include issuing a press release, mentioning the relationship on the Company website (in each case by disclosing Customer's name, general information and/or a link to Customer's website), and/or list Customer as a user of the Service.
- 9.12. Relationship. In making and performing this Agreement, Company and Customer act and shall act at all times as independent contractors and nothing contained in this Agreement shall be construed or implied to create an agency, partnership, joint venture, or employer and employee relationship between Company and Customer.
- 9.13. Document. Each party acknowledges and represents that the person signing on its behalf has read and understood all of the terms and provisions of this Agreement.

Neither this Agreement nor any of the matters set forth herein or in the schedules will be construed against either party by reason of the drafting or preparation thereof. This Agreement may be signed in any number of counterparts, each of which will be deemed an original and all of which, taken together, shall be deemed one and the same document, and may be executed by means of signatures transmitted by facsimile or by other electronic means. Headings herein are for convenience of reference only and shall in no way affect interpretation of this Agreement.

The parties have caused this Agreement to be executed by and through their duly authorized representatives as of the Effective Date.

TransLoc, Inc.

**Customer**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A: SCHEDULE OF SERVICES, SOFTWARE, AND EQUIPMENT**

This Exhibit A incorporates the terms of the Technology License and Service Agreement between Company and Customer.

1. Fees and Costs:

<b>Hardware fees:</b>	Fees	Quantity	Total Fees
Product:	XXXX	XX	XXXX
Product:	XXXX	XX	XXXX
Product:	XXX	XX	XXXX
Product:	XXX	XX	XXXX
Product: Travel & Expenses	\$TBD		\$TBD
<b>Total</b>			<b>\$XXXXX plus Actual Travel and Expenses</b>
<b>Payment Terms:</b>	Customer will be invoiced at shipment of the Equipment. Net 30.		

<b>Subscription fees:</b>	Fees/month	Quantity	Total Fees
Company Service	XXX	XX	\$XXXX /month
Company Service	XXX	XX	\$XXXX /month
<b>Monthly Total</b>			<b>\$XXXX</b>
<b>Payment Terms:</b>	Net 30. Recurring Subscription Fees will be invoiced monthly after the Activation Date with first month prorated when applicable.		

2. Reinstallation or Additional Equipment Installation Fees:

If needed, Company will uninstall Equipment and Software from a vehicle and reinstall in a different vehicle, or install additional Equipment. There is an hourly labor fee per Equipment that is reinstalled or newly installed, reimbursed travel costs, and if new Equipment, Equipment fee as stated above. Only Company is authorized to uninstall, install, and/or reinstall Equipment.

3. Spare Equipment:

Spare Equipment is not included in the fees above. If desired, Customer can purchase spare Equipment to minimize downtime in the event that Equipment needs to be repaired or replaced.

4. New Customer Information Sheet:

Customer must complete the New Customer Information sheet, found on the next page, to facilitate invoicing and payment.

**EXHIBIT B: SCOPE OF WORK**

[To be inserted by Company]



**EXHIBIT C: NEW CUSTOMER INFORMATION**

<b>Agency Information</b>	
Agency name	
Primary Contact in Accounts Payable	
Primary Contact's Email	
Billing Address	
Phone	
Fax	
<b>Billing Information</b>	
Who should receive the invoices?	
Email address of invoice recipient	
Will you be submitting a purchase order to us?	
Is there a PO number that we will need to put on the invoices?	
We receive payment for invoices via ACH or EFT. Please submit any paper work necessary to complete this request.	
Are you tax exempt? If yes, please email a copy of your Certificate of Exemption to <a href="mailto:accounting@transloc.com">accounting@transloc.com</a>	
Is there any additional information that we should be aware of to ensure timely processing of invoices?	
<b>Marketing &amp; Communications Information</b>	
Name(s) of marketing and PR contact(s)	
Email address(es) of marketing and PR contact(s)	
Are you interested in joint marketing/PR opportunities?	



**PURCHASING**

**June 3, 2024**

**MEMO TO:** Prospective Bidders  
**FROM:** Kimberly Toon, Purchasing Manager  
**SUBJECT:** **Addendum #1: RFP– Real-Time Passenger Information System**  
**DUE DATE AND TIME:** **June 17, 2024; 2:00 p.m.**

1. The Bid Documents are hereby modified per the attached Addendum #1 dated June 3, 2024. To include the following:

**a. Questions and Answers**

2. The foregoing changes shall be incorporated in the Bid Documents, and a copy of the Addendum #1, signed by the Bidder, must accompany the Bid to indicate the Bidder's familiarity with the changes.

**Question:** What is the current fleet size?

**Answer:** 30 Fixed Route Buses

**Question:** How many square miles does the fleet cover?

**Answer:** Approx. 95 sq miles

**Question:** Can you provide details on systems used to access the system?

**Answer:** Currently for TransLoc we use a web based application and have a public facing app. TransLoc has equipment on the buses that track location and feed that information back to the application. We log in on the back end to assign vehicles to routes and add service notes. No VPN is used for TransLoc but is for TripSpark and UTA, our CAD/AVL and APC vendors, respectively.

**Question:** Can you share details of current MDT provider?

**Answer:** TripSpark for CAD/AVL, TransLoc for Real Time Passenger

**Question:** What information does the terminal share RTPI system and what is the mode of integration?

**Answer:** Current RTPI system shares location of buses and stop arrival prediction information. Can also add alerts about service interruptions/impacts through public facing app.

**Question:** Is there onboard Network Router providing communications?

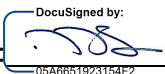
**Answer:** Yes, routers purchased through TransLoc and are most likely at end of life.

**Question:** Any passenger sensors?

**Answer:** Currently have APCs through UTA on all fixed route buses

**Bidder Acknowledgement:**

Bidder Name (Print): TransLoc, Inc.

Bidder Signature: 

Date of Signature: 6/26/2024



**PURCHASING**

**June 7, 2024**

**MEMO TO:** Prospective Bidders  
**FROM:** Kimberly Toon, Purchasing Manager  
**SUBJECT:** **Addendum #2:** RFP– Real-Time Passenger Information System  
**DUE DATE AND TIME:** **July 1, 2024; 2:00 p.m.**

1. The Bid Documents are hereby modified per the attached Addendum #2 dated June 7, 2024. To include the following:

**a. Questions and Answers**

2. The foregoing changes shall be incorporated in the Bid Documents, and a copy of the Addendum #2, signed by the Bidder, must accompany the Bid to indicate the Bidder's familiarity with the changes.

**Question:** Would FAST please provide any details held on the current MDT used and what functionality this offers presently in terms of CAD/AVL today?

**Answer:** 4.0 Rangers through TripSpark, used for work management/messaging

**Question:** Would FAST please clarify expected CAD/AVL features they desire in the future, noting that FAST intends to retain the use of the existing vehicle tracking hardware?

**Answer:** CAD/AVL that works with APCs and Real-Time tracking

**Question:** Would FAST please explain how GTFS and GTFS-RT files are produced presently and if these methods will be retained going forward?

**Answer:** GTFS produced by TripSpark Schedule program. No GTFS-RT feed.

**Question:** Would FAST please clarify if the vendor is expected to consume existing GTFS static or produce the base GTFS static files for the Real-Time system going forward?

**Answer:** Consume existing but would like for vendor to have the ability to create.

**Question:** Would FAST please clarify how boarding and alighting counts are gathered presently, is this through use of APCs, if so, please provide make and model details and how this interconnects to existing on-vehicle equipment?

**Answer:** UTA APC Model 31 CPU, Hella Sensors on 2 coaches, APC SmartSensor CPU, DR700 on other coaches

**Question:** Would FAST please clarify how route planning is currently conducted with respect to testing designs and evaluating impacts?

**Answer:** Use Remix planning platform and on-road evaluation

**Question:** Would FAST please clarify how API integration for the administrative console is envisaged? Does the administrative console refer to software offered by the bidder or a discrete dispatcher workstation to be provided?

**Answer:** Would prefer a cloud-based option where dispatchers/admin can sign in to manage fleet.

**Question:** Would FAST please clarify how API integration for setting route, block, or trip is envisaged? Is the bidder expected to accept this data from a third-party system? If so, please share details of any systems in mind. If it is expected that the bidder overrides values in the tracking hardware, is it the expectation of FAST that this is a back-office to back-office integration to the supplier of the vehicle tracking hardware?

**Answer:** Use information from GTFS that is uploaded to system. Dispatcher then assigns vehicles.

**Question:** Would FAST please clarify how route assignment to buses and existing hardware is conducted? Is this through the fare collection provider? If so, please share details of the existing fare collection system.

**Answer:** Work is assigned to buses through TripSpark Dispatch. Fare collection is GFI.

**Question:** Can FAST confirm the expectation that no new hardware will be installed as part of this procurement exercise?

**Answer:** No.

**Question:** Notwithstanding the need for an NDA with the hardware supplier, is FAST able to share any details of existing communication protocols between vehicle tracking hardware and the software in use today to enable bidders to provide an accurate price estimate?

**Answer:** Unsure to answer this question.

**Question:** Would FAST please clarify if bidders are expected to supply new MDTs to deliver messaging and announcement capabilities or integrate with existing.

**Answer:** Will depend on vendor ability to integrate.

**Question:** Would FAST please clarify how it is envisaged that bidders will control interior and exterior signs with existing or new hardware?

**Answer:** Would prefer existing if possible.

**Question:** In light of the outstanding clarifications to enable a responsive bid, would FAST consider a four (4) week extension to the bid deadline?

**Answer:** FAST will consider a two (2) week extension. Changing the bid due date from June 17, 2024 to July 1, 2024; 2:00 p.m.

**Question:** Would FAST consider accepting email submissions, noting the shortened response window necessitated by a paper submission?

**Answer:** Electronic submissions are not accepted. Paper submissions are the only accepted submissions.

**Question:** Would FAST please confirm if bidders are free to submit costs in a format chosen by the bidder or should we populate a cost proforma produced by FAST (if so, could FAST share this please)?

**Answer:** Format chosen by bidder.

**Question:** Would FAST please confirm if there is a detailed list of bidder questions (beyond which is indicated on pg 3-4) for the technical with a page limit or if this is left to bidder discretion?

**Answer:** None

**Question:** Can FAST please confirm the exact date/time of submission deadline? Page 1 of the RFP and website <https://www.fayettevillenc.gov/city-services/finance/purchasing/bid-opportunities> indicates submission is by June 17 2:00pm, page 3 indicates June 13.

**Answer:** Deadline was June 17<sup>th</sup> but has been extended to July 1, 2024.

**Question:** Could FAST please confirm if all Optional Features are expected to be priced in the proposal?

**Answer:** Not expected but preferred

**Question:** Could FAST provide information on the fleet size, type of vehicles and currently existing Hardware on-board to evaluate the need of additional hardware versus integration.

**Answer:** 30 Coaches (35' & 30'), mixture of Gillig and New Flyer. Rangers, APCs, AVL through TransLoc (RV50x)

**Question:** How many fixed-route vehicles does the city currently utilize? How many are one-door, two-door?

**Answer:** 30 fixed-route vehicles, 28 with two doors, 2 with 1 door

**Question:** Please confirm which systems (CAD/AVL, AVA, etc.) are considered ‘core’ for this proposal vs. ‘optional.’

**Answer:** Core would be Real time tracking and app for customers, everything else is considered optional.

**Question:** Regarding the “Third-Party Tracking Hardware” section: please provide the hardware required for integration, along with their manufacturers and model numbers.

**Answer:** Currently using RV50x hardwired device from TransLoc and 4.0 Rangers from TripSpark.

**Question:** In the reporting section, Fayetteville expresses a need for NTD reporting. How does your agency currently capture passenger counts for NTD reporting? Should providers include information regarding APC/EPC options to support passenger load notifications and NTD reporting?

**Answer:** Currently FAST uses TripSpark and UTA data for NTD reporting. Would like to see information on options to support passenger load notifications and NTD reporting.

**Question:** Regarding “Optional Functions & Features”: please define the “dispatch optimization” services that Fayetteville is seeking.

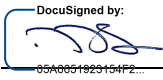
**Answer:** Would like one system that provides CAD/AVL and Real-Time tracking for customers to reduce the need for dispatchers to operate two systems.

**Question:** Does FAST have existing covert alarms in the vehicles or should the vendor provide this? Does FAST require a mechanical button as opposed to an alarm button provided on the MDT?

**Answer:** FAST has existing through Rangers.

**Bidder Acknowledgement:**

Bidder Name (Print): TransLoc, Inc.

Bidder Signature: 

Date of Signature: 6/26/2024



# TransLoc Exceptions

**CITY OF FAYETTEVILLE**  
**REAL-TIME PASSENGER INFORMATION SYSTEMS**  
**PROPOSAL NO. #: COF1516893**  
**TransLoc's Legal - T&CS Exceptions June 25, 2024**  
**Introduction**

The following table sets out the specific exceptions from TransLoc's (Vendor/Contractor's) review of the following parts of the RFP:

- \_ Attachment RFP: Clauses
- \_ Legal Statements and Contractual Requirements
- \* \_ Federal Transit Administration Requirements

**IMPORTANT NOTE TO THE CITY:** As a valued City of TransLoc, the City recognizes that this bid is subjected to the negotiation of a contract on mutually agreeable terms following award. Such contract shall include negotiated indemnification, limitation of liability, confidentiality, data ownership, IP ownership, insurance, warranty, termination, and payment terms. This negotiated contract shall govern the contractual relationship between the parties. Furthermore, Vendor has submitted its standard Technology License and Service Agreement ("TLSA"), which is referenced herein and incorporated into these exceptions."

Legend: Items in **red** are additions. Strike Outs are deletions. Sections completely in **blue** are either comments or contract language not in the RFP but critical areas of Vendor's Technology License and Service Agreement.

Section (A)	Item (B)	Addition/Modification (C)	Comments (D)
RFP	<b>Data Management and Ownership: Modified per Column C</b>	<ul style="list-style-type: none"> <li>• All data collected by the system should be archived for a minimum of three years. This <b>service</b> data will be owned by <b>Vendor</b> <del>FAST</del> and available to <b>FAST</b> through an API or other data transferring format. The data <del>must be received</del> <b>will be made available</b> in a format that allows for manipulation, such as .CSV or Excel. The vendor will describe disposition of data and the cycle time for data requests in proposal.</li> </ul>	
RFP	<b>Warranty and Maintenance: Modified per Column C</b>	<ul style="list-style-type: none"> <li>• 1. Service Level Agreement-The vendor shall provide a proposed service level <del>agreement</del> <b>objectives</b> that will include the data network(s) and other devices, or subsystems <del>and the incentives/ penalties associated with the performance expectations not being met.</del></li> <li>• 4. Warranty-A warranty will be provided for the software, implementation services, hardware and the operability of the System for at least three (3) years, which is to begin on the date of <b>contract signature for implementation, service availability ("Go Live") for the software, date of acceptance purchase for the hardware.</b> A copy of the Vendor's warranty will be provided with the Proposal.</li> <li>• <del>5. Software-The Vendor (software licensor) warrants that the software conforms in all material respects to the requirements and specifications. The Vendor warrants that the software's capabilities satisfy the functional requirements herein. Furthermore, the warranty shall be valid for at least three (3) years, which is to begin on the date of system acceptance.</del></li> <li>• 6. Implementation Services - Vendor warrants implementation services (e.g., work products, developed modifications, system configuration, etc.) for at least three (3) years, which is to begin on the date of <b>contract signature</b> <del>system acceptance.</del></li> <li>• 7. The System -The Vendor <del>shall</del> warrants <b>that it shall employ commercially reasonable efforts to ensure</b> that the System <del>shall properly operate</del> <b>within the service level objectives</b> for at least three (3) year, which is to begin on the date of system <b>Go Live</b> <del>acceptance.</del></li> </ul>	

<p>Legal Statements and Contractual Requirements</p>	<p><b>Indemnification: Modified per Column C</b></p>	<ul style="list-style-type: none"> <li>To the extent permitted by law, the Contractor agrees to defend, indemnify and hold harmless the City, its elected officials, employees, agents, successors, and assigns, from any and all liability and claims brought by a third-party for any injury or damage caused by any intentional act, omission or gross negligence of the Contractor, its agents, servants, employees, contractors, licensees, or invitees. Indemnification of the City by the Contractor does not constitute a waiver of the City's governmental immunity in any respects under North Carolina law. Contractor assumes entire responsibility and liability for the resulting losses, expenses, demands and claims in connection with or arising out of any injury, or alleged injury (including death) to any person, or damage, or alleged damage, to real and tangible property of the City or others sustained or alleged to have been sustained in connection with or to have arisen out of or resulting from the gross negligence of the Contractor, his subcontractor, agents, and employees, in the performance of the work/service set forth in the Standard Specifications and Special Provisions, and any changes, addenda, or modifications including losses, expenses or damages sustained by the City, and agrees to indemnify and hold harmless the City, its officials, employees or volunteers from any and all such resulting losses, expenses, damages, demands and claims brought by a third party and agrees to defend any suit or action brought against them, or any of them, based on any such alleged injury or damage, and to pay all damages, cost and expenses in connection therewith or resulting therefrom. As an integral part of this Agreement, Contractor agrees to purchase and maintain during the life of this Agreement contractual liability insurance in the amount required in the general liability insurance requirements and to furnish proper evidence thereof. Indemnification by the Contractor does not constitute a waiver of the City's governmental immunity in any respect under North Carolina law. <b>Notwithstanding the foregoing, neither party shall be liable for any indirect or consequential damages arising out of a parties act or omission under this Agreement.</b></li> </ul>	
<p>Legal Statements and Contractual Requirements</p>	<p><b>Termination for Convenience: Delete in its Entirety</b></p>	<ul style="list-style-type: none"> <li><del>Upon thirty (30) calendar days' written notice to Contractor, the City of Fayetteville may, without cause and without prejudice to any other right or remedy legally available to the City of Fayetteville, terminate this Contract. Upon such notice, Contractor shall have neither the obligation nor the right to perform services under this contract nor shall the City of Fayetteville be obligated to make any further payment for work that has not been performed in accordance with the terms stated herein. In such case of termination, Contractor shall be paid for the completed and accepted work executed in accordance with this Contract prior to the written notice of termination. Additionally, upon mutual agreement, Contractor may be paid for any completed and accepted work which takes place in order to achieve a specifically identified item in the scope of services or a milestone of the Contract, between the written notice of termination and the effective date of termination. Unless otherwise stated or agreed upon, the effective date of termination shall automatically occur 30 days' after the written notice is sent by the City of Fayetteville. Contractor shall provide to the City of Fayetteville all reports, surveys or other related documents upon the City's request.</del></li> </ul>	<p>Termination is for Cause</p>
<p>Legal Statements and Contractual Requirements</p>	<p><b>Termination for Cause: Modified per Column C</b></p>	<ul style="list-style-type: none"> <li>In the event of substantial failure by Contractor either party to perform in accordance with the terms of this contract, <del>City of Fayetteville</del> the non-breaching party shall have the right to terminate the contract Contractor upon <del>ten</del> thirty calendar (+30) days written notice in which event Contractor shall have neither the obligation nor the right to perform further services under this contract nor shall the City of Fayetteville be obligated to make any further payment for work that has not been performed. Contractor shall provide to the City of Fayetteville all reports, surveys or other related documents upon the City's request.</li> </ul>	
<p>Legal Statements and Contractual Requirements</p>	<p><b>Assignment: Modified per Column C</b></p>	<ul style="list-style-type: none"> <li>It is the intent of this Contract to secure the personal services of Contractor and failure of Contractor for any reason to make the personal services available to the City of Fayetteville for the purposes described in this contract shall be cause for termination of this contract. Contractor <del>Neither party shall not</del> assign this contract without prior written consent of the other party <del>City of Fayetteville</del> except in connection with the sale or transfer of all or substantially all of such party's business, whether by merger, sale or otherwise. <b>Notwithstanding the foregoing, however, the City's consent shall</b></li> </ul>	

		<p>not be required for assignments of this Agreement in whole or in part that result from a merger or acquisition, provided the contract is assigned to an affiliate of Contractor or an entity under common control with Contractor or Contractor's corporate parent.</p>	
Federal Transit Administration Requirements	<b>Government Audit: Modified per Column C</b>	<ul style="list-style-type: none"> <li>4. The Federal Transit Administration, U.S. Department of Transportation, the Comptroller General of the United States, and any of their duly authorized representatives shall have access to <del>any books, documents, papers, and records of the Contractor that are directly pertinent to the Contract, for the purpose of making audit, examination, excerpts, and transcripts</del> validating Contractor invoices. Audits will be at the City's expense and occur only once annually unless there is belief of a material breach of the Agreement. Audits shall occur upon sixty (60) days prior written notice to Contractor.</li> </ul>	A6 -See Assignment E -Surety Bond not applicable
Federal Transit Administration Requirements	<b>Termination for Default: Modified per Column C</b>	<ul style="list-style-type: none"> <li>6. The events described below shall be events of default, upon the occurrence of any of which the City shall have the right, at its option, to terminate the Contract <b>upon thirty (30) days prior written notice to Contractor and the opportunity for Contractor to cure such default.</b> In the case of any such event except the Contractor's insolvency, assignment for benefit of creditors or transfer in fraud of creditors, bankruptcy, or receivership, the City shall first give the Contractor and its Surety written notice that he is in default as defined herein, and of the reason for such default. If the Contractor fails to remedy or to begin to remedy such default within <del>5</del> <b>thirty (30)</b> days after he receives such notice, the City may terminate the Contract by giving the Contractor and its Surety a further written notice of its election to do so. Such termination shall be effective immediately, or at such other time as the City may specify in such notice. In case of the Contractor's insolvency, assignment for benefit of creditors or transfer in fraud of creditors, bankruptcy, or receivership, the Contractor shall not be entitled to prior notice of such default. The City's right to terminate the Contract as provided in this Article shall be in addition to all other rights and remedies, at law, in equity, or otherwise, to which the City may be entitled arising out of such events of default. If upon the occurrence of any event of default the City shall waive the same, or shall elect not to exercise its right to terminate the Contract, such waiver or election shall not be or be construed as a waiver of any other default, nor to be a waiver of or election not to terminate because of a like default on another occasion.</li> <li>A.6. If the Contractor assigns the Contract without the City's consent, or subcontracts the performance of all or any part of the Work under the Contract without the City's approval as required by these General Conditions <b>except as indicated under the assignment exception in the RFP section referenced above.</b></li> <li><del>E. The surety or sureties on the performance bond provided for in the Contract shall not be entitled to take over the Contractor's performance of Work in case of termination under this Article, except with the consent of the City</del></li> </ul>	
Federal Transit Administration Requirements	<b>Termination for Convenience: Delete in its Entirety</b>	<ul style="list-style-type: none"> <li><del>7. TERMINATION FOR CONVENIENCE.</del></li> <li><del>If for any reason the financial assistance for the Contract, is withdrawn or otherwise becomes unavailable, the City shall have the right to terminate the Contract. Such termination shall be effected by delivering to the Contractor a written notice stating the date upon which such termination takes effect. From and after receiving such notice, the Contractor shall place no further subcontracts or orders for services, materials, equipment, or supplies to be used to perform any Work so terminated, and shall cancel all subcontracts and orders then outstanding for such services, materials, equipment, or supplies that he is legally entitled to cancel, and shall incur no additional cost, expense, or obligation for the purpose of performing the Contract. On the date stipulated in the said notice, the Contractor shall stop all Work so terminated. If the Contract is so terminated, the Contractor shall be entitled to payment for the actual costs of (a) performing any part of the Work so terminated that has been performed satisfactorily on or before the effective date stipulated in the notice of termination; (b) all materials, equipment, and supplies that, on the date the Contractor receives the said notice, are in the process of manufacture specifically to be incorporated or installed in the Work so terminated; and (c) all materials, equipment, and supplies that on the date the Contractor receives the said notice have been ordered specifically to be incorporated or installed in the Work so terminated, and the orders for which the Contractor cannot legally cancel.</del></li> </ul>	

		<p>provided that in the case of orders that can be legally canceled subject to a cancellation charge or penalty, the Contractor shall be entitled only to the amount of such charge or penalty. All materials, equipment, supplies, and other goods for which the Contractor is paid and that are or come into his possession shall be delivered to the City or otherwise disposed of as the City directs. In addition, the City will reimburse the Contractor for any other costs or expenses incurred solely and directly to perform, or to prepare to perform, the Work so terminated or any part thereof, and that, because of the termination, the Contractor will not otherwise recover. Payments under item (a) of this Article, for satisfactory Work performed, shall be based upon the Contract prices therefor, including the Contractor's allowance in such prices for overhead and profit. The Contractor shall not be entitled to any general administrative or overhead costs with respect to any other payments under this Article, or to anticipate profits with respect to the Work terminated as provided herein. Any claim for payment arising out of any termination of Work as provided herein shall be paid only if presented to the City, in writing, within 90 days after the effective date stipulated in the notice of termination.</p>	
	<p><b>Software Upgrades: Add the clause</b></p>	<ul style="list-style-type: none"> <li>• <u>Software Upgrades.</u> Vendor will provide upgrades to Software (“<b>Upgrades</b>”) that Vendor generally makes available to its other licensees for no additional charge. City acknowledges that Upgrades include only point releases that improve or maintain the stability of the Service and do not include major releases that add new functionality, which may be available for an additional fee. In the case where Vendor provides new features to the City at no charge, the continued availability, performance, or usefulness of such features are not guaranteed or warranted by Vendor and such new features may be revoked at any time. City acknowledges that some newly integrated features in future releases of the Vendor Software may require the purchase of the appropriate hardware upon which the features depend.</li> <li>• If Vendor is no longer providing one or more Services, or in the event that a Service goes end-of-life, Vendor may, replace the Service in accordance with the terms of this Agreement with a functional equivalent; provided, that any such functional equivalent shall have substantially similar features and functions as the Service it is replacing and shall reasonably meet or exceed the specifications and other requirements prescribed by this Agreement for the Service, and upon such replacement in accordance with this Section, such replacement Service shall be considered a Service for the purposes of this Agreement. To the extent necessary, Vendor and City shall amend any applicable statement of work to reflect such replacement of Service.</li> </ul>	
	<p><b>Subscription Fees</b></p>	<ul style="list-style-type: none"> <li>• The rates for the Service are identified in the Pricing Exhibit. The Subscription Fees will commence on the Activation Date and will continue for the Term. Subscription Fees are paid annually in advance, upon the Activation Date.</li> </ul>	
	<p><b>IP and Data Ownership: Add the clause</b></p>	<ul style="list-style-type: none"> <li>• Vendor is the sole and exclusive owner of all rights, title and interest in and to the Service, including all updates, modifications, customizations, enhancements and other derivative works thereof (collectively “<b>Derivative Works</b>”), and in any and all copyrights, patents, trademarks, trade secrets and other proprietary and/or intellectual property rights therein or thereto. To the extent any Derivative Work is developed by Vendor based upon ideas or suggestions submitted by City to Vendor, City hereby irrevocably assigns all rights to modify or enhance the Service using such ideas or suggestions or joint contributions to Vendor, together with all copyrights, patents, trademarks, trade secrets, and other proprietary and/or intellectual property rights related to such Derivative Works. Nothing contained in this Agreement shall be construed to convey to City (or to any party claiming through City) any rights in or to the Service, other than the rights expressly granted in this RFP response or subsequent Agreement.</li> <li>• <u>Data Ownership:</u> The City acknowledges and agrees that, as between City and Vendor, Vendor retains all ownership right, title and interest in and to all Service Data (which means any data, information, content, documents, or electronic files provided to or collected by Vendor from either City or its users during the course of their use of any component of the service), including all copyrights, patents, trademarks, trade secrets, and other proprietary and/or intellectual property rights therein or thereto. Vendor may analyze and compile Service Data for the purpose of creating De-Identified Data. Vendor may use the De-Identified Data without restriction</li> </ul>	

		<p>and may combine the De-Identified Data with data from other sources to create aggregate statistical data. Service Data means any data, information, content, document, or electronic files provided to or collected by Vendor from either City or its Users during the course of their use of any component of the Service.</p>	
	<p><b>Term and Termination: Add the Clause</b></p>	<ul style="list-style-type: none"> <li>• <u>Term</u>. This Agreement begins on the Effective Date and will remain in effect for the Initial Term. The Agreement will automatically renew for additional successive one (1) year periods (each a “Renewal”) unless City provides written notice to Vendor at least one hundred twenty (120) days before the end of the Term.</li> <li>• <u>Termination for Breach</u>. Either party may terminate this Agreement if the other party materially breaches any of the terms and conditions of this Agreement and it is not cured:             <ul style="list-style-type: none"> <li>○ Within ten (10) days after written notice if the breach relates to payment of Fees; or</li> <li>○ Within thirty (30) days after written notice for any other breach.</li> </ul> </li> </ul> <p><u>Effect of Termination or Expiration.</u></p> <ul style="list-style-type: none"> <li>• Upon termination or expiration of this Agreement for any reason, (i) the City’s license for Vendor and right to access and use the Service automatically terminates, and (ii) the City’s right to receive, view and/or access the Service Data automatically terminates. Termination of this Agreement does not relieve City of its obligation to pay monies due to Vendor.</li> <li>• Should this Agreement be terminated before the end of the Term, for any reason other than Vendor breach, City must pay all current, outstanding, and remaining Fees for the remainder of the Term. Fees are due no later than thirty (30) days from the effective date of termination of the Agreement.</li> <li>• City may not decrease their Service subscription count during the Term. Upon not less than one hundred twenty (120) days before the end of the Term, City must provide written notice to Vendor should City require fewer Service subscriptions during the Renewal. For avoidance of doubt, City may at any time during the Term, pursuant to an amendment to this Agreement, purchase additional Service subscriptions.</li> </ul>	
	<p><b>Intellectual Property Infringement Protection: Add the Clause</b></p>	<ul style="list-style-type: none"> <li>• If a third party claims that the Service provided to City by Vendor under this agreement infringes that party’s United States patent or copyright, Vendor shall defend City and City’s Affiliates against that claim and shall pay any losses, liabilities, damages, judgments, awards, expenses, and costs, including reasonable attorneys’ fees that a court finally awards against City, provided that City (i) promptly notifies Vendor of the claim and (ii) permits Vendor to control and cooperates with Vendor in the defense and any related settlement negotiations. City may participate, at City’s own expense, in the defense of such claim.</li> <li>• If any part of the Service is, or in Vendor’s reasonable judgment may become, the subject of any such proceeding Vendor may, at its expense and option, do one of the following: (i) procure for City the necessary right to continue using the Service and Equipment; (ii) replace or modify the infringing portion of the Service or Equipment with a functionally equivalent non-infringing item or portion thereof, or (iii) if none of the foregoing are commercially reasonable, terminate City’s right to use the Service or the affected portion thereof, and refund to City an amount equal to the prepaid Subscription Fee or the affected portion thereof and the cost of any equipment, less amortization for its use on a straight line basis over a period of five (5) years from the Effective Date. The preceding sets forth Vendor’s only obligations and City’s sole and exclusive remedies with respect to infringement or misappropriation of intellectual property rights.</li> <li>• Vendor will not be liable hereunder for any claim of infringement that is based upon (i) the combination of the Service, or any part of the Service, or the Equipment with any product, software, hardware, machine, or device which is not provided by Vendor or identified by Vendor in its specifications as necessary to operate the Service, (ii) any modification of the Service or</li> </ul>	

		<p>Equipment by a party other than Vendor, or (iii) the use of a version of the Service other than a current, unaltered release of the Service if such infringement would have been avoided by the use of a current, unaltered release.</p>	
	<p><b>Limitation of Liability and Damages: Add the Clause</b></p>	<ul style="list-style-type: none"> <li>• <u>Limitation of Liability.</u> EXCEPT WITH RESPECT TO CLAIMS ARISING FROM OR RELATING TO (i) THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF VENDOR OR (ii) DAMAGES ARISING FROM OR RELATING TO BODILY INJURY (INCLUDING DEATH) OR DAMAGE TO REAL OR TANGIBLE PERSONAL PROPERTY CAUSED BY VENDOR IN THE PERFORMANCE OF SERVICES UNDER THE AGREEMENT: NEITHER PARTY WILL BE LIABLE FOR ANY INDIRECT, SPECIAL, EXEMPLARY, CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT (INCLUDING, WITHOUT LIMITATION, ANY DAMAGES FOR LOST PROFITS OR LOSS OF DATA OR BUSINESS INTERRUPTION), WHETHER ARISING FROM NEGLIGENCE, ERRORS, OR FAILURE OF PERFORMANCE, EVEN IF VENDOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION UPON DAMAGES AND CLAIMS SHALL APPLY WITHOUT REGARD TO WHETHER OTHER PROVISIONS OF THIS AGREEMENT HAVE BEEN BREACHED OR HAVE PROVEN INEFFECTIVE.</li> <li>• <u>Damages.</u> IN NO EVENT SHALL VENDOR'S AGGREGATE LIABILITY FOR ALL CLAIMS UNDER THIS AGREEMENT, WHETHER ARISING IN CONTRACT, TORT OR ANY OTHER LEGAL THEORY EXCEED AN AMOUNT EQUAL TO THE FEES PAID BY CITY OR CITY'S AFFILIATE IN THE SIX (6) MONTH PERIOD PRECEDING THE ACT GIVING RISE TO THE CLAIM FOR DAMAGES.</li> </ul>	
	<p><b>Confidentiality: Add this Clause</b></p>	<ul style="list-style-type: none"> <li>• A Receiving Party (a) shall hold the Disclosing Party's Confidential Information in strict confidence and will use the same degree of care in protecting the confidentiality of the Disclosing Party's Confidential Information that it uses to protect its own Confidential Information, but in no event less than reasonable care; and (b) except as expressly authorized by this Agreement, shall not, directly or indirectly, use, disclose, copy, transfer or allow access to the Confidential Information. Notwithstanding the foregoing, a Receiving Party may disclose Confidential Information of the Disclosing Party as required by law or court order. In such event, the Receiving Party shall (i) use its best efforts to inform the Disclosing Party before any such required disclosure, and (ii) provide reasonable assistance, at the Disclosing Party's cost, if the Disclosing Party wishes to contest the disclosure.</li> <li>• The City shall limit access to the password-protected portions of the Service and any Equipment to City's employees who have a legitimate need to access the Service and Equipment.</li> <li>• Upon the termination or expiration of this Agreement, or upon the request of the Disclosing Party, the Receiving Party will return to the Disclosing Party all the Confidential Information delivered or disclosed to the Receiving Party, together with all copies in existence thereof at any time made by the Receiving Party.</li> <li>• If City receives a public record request for Confidential Information, City shall notify Vendor and Vendor shall, within fifteen (15) business days (or within the maximum period allowed by applicable law), notify the City whether it desires for the Confidential Information to be withheld, and provide a legal basis under the California Public Records Act for withholding the Confidential Information. If City withholds the Confidential Information pursuant to Vendor's request, Vendor shall indemnify and defend City from any and all costs or liabilities resulting from such withholding including, but not limited to, attorney fees and court costs. If Vendor fails to notify City within the time specified or to provide a legal basis for withholding of the Confidential Information, Vendor agrees that City shall be entitled to release and disclose the Confidential Information.</li> <li>• <u>Remedies.</u> Each party acknowledges and agrees that any violation of this Article (Confidentiality) may cause irreparable injury to the other party for which there would be no adequate remedy at law and, therefore, such other party shall be entitled to preliminary and other injunctive relief against the other party for any such violation. Such injunctive relief shall be in addition</li> </ul>	

		<p>to, and in no way in limitation of, all other remedies or rights that the parties may have at law or in equity.</p>	
	<p><b>Payment: Add this Clause</b></p>	<p>Vendor will invoice the City for Fees. City shall pay Vendor in accordance with payment terms set forth below:</p> <ul style="list-style-type: none"> <li>• Fees are payable in U.S. dollars only and are due no later than thirty (30) days after the invoice date. Fees are nonrefundable.</li> <li>• Payments shall be delivered to the address indicated on the invoice, unless otherwise instructed by Vendor.</li> <li>• Late payments shall be subject to interest at the monthly rate of one percent (1%), or the maximum amount allowed by applicable law, if lower. Interest on late payments will be calculated from the date when payment becomes overdue until the date payment is received by Vendor. Vendor may suspend the Service if the Subscription Fee is not received by the due date. If Vendor suspends the Service for non-payment, City may be charged a fee for reinstatement of the Service.</li> <li>• City shall pay Vendor's costs of collecting amounts past due under this Agreement, including reasonable attorneys' fees.</li> <li>• Prices do not include applicable state and local sales, use and other taxes. City is responsible for such taxes or shall provide proof of tax exemption</li> <li>• <u>Fee Increase</u>. Vendor shall, upon each anniversary of the Effective Date during the Term, increase Fees six percent (6%). Any increase greater than six percent (6%) shall be preceded by sixty (60) days written notice or a discussion with City.</li> </ul>	
	<p><b>Warranties and Disclaimer: Add this Clause</b></p>	<ul style="list-style-type: none"> <li>• In the event any third-party materials are provided to the City hereunder, either as part of the Services or as necessary or incidental to Vendor's provision of Services (including hosting services), Vendor shall pass through to City any and all representations, warranties and covenants from such third-party providers, in addition to any representations, warranties and covenants provided by Vendor in this Agreement.</li> <li>• If a warranty is purchased and procured through Vendor, Equipment provided by Vendor will be warranted against defects in material and workmanship for the Extended Equipment Warranty Period beginning on the Activation Date. Vendor may repair, modify or replace any or all of the Equipment in the performance of warranty.</li> <li>• Vendor is not responsible for failure of the Service to conform to the Documentation or to provide accurate information with respect to the location, time, status, availability or existence of City's Vehicle Fleet if the Equipment is (i) damaged, blocked, modified, disassembled, vandalized, destroyed, or interfered with; (ii) subjected to extreme temperatures, flooding, over-voltage, electrical surges, misapplication of electrical power, or caustic chemicals; (iii) improperly installed or maintained by City or any third party; or (iv) used for a purpose other than as intended by Vendor, including but not limited to use in a configuration not recommended by Vendor.</li> <li>• <u>Disclaimer</u>. EXCEPT AS EXPRESSLY PROVIDED HEREIN, VENDOR MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTIES ARISING FROM TRADE USAGE OR COURSE OF DEALING. IN ADDITION, THE SERVICE DEPENDS UPON DATA BEING TRANSMITTED OVER THE INTERNET, CITY'S NETWORK, GPS SATELLITES, AND THIRD-PARTY CARRIER NETWORKS, AND AS VENDOR HAS NO CONTROL OVER THE FUNCTIONING OF THE INTERNET, THE SERVICE IS OFFERED ON AN "AS-AVAILABLE" BASIS. VENDOR DOES NOT WARRANT THAT THE SERVICE WILL OPERATE UNINTERRUPTED OR ERROR-FREE</li> </ul>	