

## ATTACHMENT D – SPECIFICATIONS REQUIREMENT FORM

**(Complete Form and Submit with Proposal) – NOT INCLUDED IN PROPOSAL PAGE COUNT**

**INSTRUCTIONS – REQUIRED FORM, SHALL BE INCLUDED IN THE SUBMITTAL PROPOSAL PACKAGE.**

Complete and submit with proposal package. Check the Yes box to indicate the feature is standard with the software. Check No if the feature is not available or applicable to your software.

Identify as an Add-on if it is available outside of the standard package and include details in the additional information section.

Identify within the additional information column any added information to support your selected choice. If need be, include additional information as an attachment to this form. Clearly identify as such.

ADMINISTRATIVE CHARACTERISTICS					
	Specification	Yes	No	Add-on	Additional Information
<b>REQUIRED</b>	1. Customer support requests go directly to customer support representative instead of account managers to reduce steps in issue resolution, promote quicker turnaround time, and provide better customer support				
	2. Support ticket status tracking-ability to track and monitor progress on open support tickets				
	3. Customer support covers all system components or software, networking, or APN (Access Point Name) issues.				
	4. Customer support availability 24 hour.				
	5. In-person initial training through deployment, virtual annual follow up training, as well as virtual ongoing training (including major system updates/upgrades) to minimize user errors.				
	6. Sandbox Server-access to virtual isolated environment that mirrors the live system and is dedicated for training and testing purposes.				
	7. Bi-weekly vendor calls scheduled post-deployment to directly discuss any issues, changes, needs, etc.				
	8. Non-proprietary hardware-ability to use market tablets with downloaded software application.				
	9. Low-impact software updates-software will note request frequent upgrades of tablets RAM, bandwidth, processor, or other large investment hardware upgrades.				

ADMINISTRATIVE CHARACTERISTICS					
	Specification	Yes	No	Add-on	Additional Information
	10. SSO with customizable permissions-Individual logins with information access permissions are determined by assigned roles and/or by individual editable permissions. Administrative permissions allow for the creation/management of user groups. The ability for multi-factor authentication with multiple options for secondary authentication.				
	11. Cloud Uptime-Standard history of 99%+ uptime.				
	12. Annual reviews of the contract with the vendor to ensure all functions are being used and contract requirements are being met.				
	13. Regular mapping updates-ability to manually update static maps and/or integrates open API with automatic map updates.				
	14. Third-party integration & open Application Programming Interface (API)-separate by integrated feature-ability to integrate with other relevant transit software platforms as necessary (i.e. MnDOT database reporting, fare collection, mobile ticketing, electronic farebox, maintenance software, trip planning, customer portals, app/web-based customer-facing solutions, etc.) Integration capabilities are necessary for scalability with future transit solutions				
	15. HIPA Compliance- software must be HIPA-compliant				
	16. Cybersecurity-the application must meet all cybersecurity standards and requirements outlined by the US Department of Homeland Security.				
	17. Locked Tablets-the software app must be capable of running on a locked tablet and still allow for driver interaction with the app.				
STRONGLY DESIRED	1. Historical record of schedule changes for auditing-the ability for software to track all changes made to the schedules, who made the changes, and when they were made.				
	2. Customizable system branding- customizable colors for background/text, proper contrast, application integration, etc.				
	3. Compliant with MnDOT interoperability requirements per Section 7 – Other Requirements				

ADMINISTRATIVE CHARACTERISTICS					
OPTIONAL	1. Multiple organization access to allow for regional transit or other shared tripped opportunities.				

ROUTING AND SCHEDULING					
	Specification	Yes	No	Add-on	Additional Information
REQUIRED	1. Real-time map data-system-based scheduling optimization on real time road and operating conditions				
	2. Geocoding-ability for both automatic geocoding and manual override.				
	3. Roads map management- Ability to manually identify new roads, closed vs. open roads, closed vs. open intersections, dead end roads, etc. The system adjusts optimization accordingly.				
	4. Map and schedule synchronization- the software sends the specific roads used to develop trip schedules/routing, as opposed to the in-vehicle tablet routing to an address independently.				
	5. AVL-Display in-service vehicles in real time on dispatch and rider facing maps.				
	6. Real-time performance monitoring and calibration-ability to monitor OTP and calibrate/reconcile differences between estimated and actual travel times. Ability to adjust software-produced travel times faster or slower depending on the time of day, day of the week, weather, driver profile, etc.				
	7. Global schedule changes-ability to globally adjust specified schedules (i.e., two-hour lates start due to bad weather).				
	8. Routing/driving analysis-Comparison/analysis of system routing vs. actually used routes.				
	9. Automated scheduling and routing optimization-the system produces suggested results based on a scheduling algorithm and customizable variables. Can apply different settings based on area or run type.				
	10. Scheduling conflicts/duplication fix-specifically identified with a quick option to remove them.				
	11. Real-time, same day & advance scheduling-ability to assign rides to a defined run at the time of request, for the same day and days in advance (with customizable parameters). Arrowhead allows for standing order trip.				

ROUTING AND SCHEDULING					
	Specification	Yes	No	Add-on	Additional Information
	12. FILO-(First-in-Last-Out) optimization-customizable by passenger demographic (wheelchair, disabled, add-on, or multiple metrics)				
	13. Vehicle size and configuration software accounts for vehicle size and capacity when scheduling rides so that it would never over-assign passengers based on seating capacities and configurations.				
	1. Filter views-dispatch and scheduling windows can be filtered to show specific runs, vehicles, etc.				
	2. Customizable scheduling- Ability to create, customize, and manage breaks (and break locations), out-of-service time, pickup windows, blocking, door-side pickup, group scheduling/group management, run freezing, ride locking/linking, bus anchoring/tethering, etc.				
	3. Route Deviation-ability to create deviated routes. Deviation requests are automatically sent to drivers' tablet				
	4. Common Names- System shall be able to assign common names (like Walmart, Post Office, etc.) to locations				
	5. Multiple pick-up location at an address- ability to set multiple pick-up locations within a place that has the same address.				
	6. Ability to partition subscription services from automatic optimization engine				
STRONGLY DESIRED	1. Service Zones- must be able to define new service zones and edit existing ones without requiring assistance from the vendor				
OPTIONAL	None				

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DATA AND REPORTING					
	Specification	Yes	No	Add-on	Additional Information
REQ UIR	1. Operating statistics reporting-includes tracking/reporting of rides, hours, and miles.				

DATA AND REPORTING					
	Specification	Yes	No	Add-on	Additional Information
	2. Performance Metrics reporting- includes tracking/reporting of riders per hour, miles per ride, farebox collection, etc.				
	3. Passenger database- allows for updating passenger information and address data. When a new passenger is set up the system shall alert the user if there is an existing customer or account entry under the same name or address.				
	4. Robust customizable reporting- ability to access raw data, report on any recorded information, and filter information by an identified metric(s) as needed by Arrowhead Transit without the need for the vendor to generate report templates. This included generating ride invoices. As an alternative to raw data access, the system must provide a comprehensive and robust reporting system through a platform such as PowerBI.				
	5. Data queuing for no/low connection areas-Information exchange would be uninterrupted when vehicle emerges from a no or low connection area. Manifest updates would be automatic and performed immediately upon connection restoration. Store forward functionality for tablets.				
	6. GTFS export-GTFS data export is consumable by and transferable to the software. GTFS information is sufficient for ongoing feeds. Should allow for GTFS – Flex and GTFS – Static.				
	7. Data export- Allow export of data/reports to multiple formats (PDF, excel, etc.) for data manipulation, reporting, and sharing outside the application.				
	8. Robust reporting- Ability to access raw data create comprehensive customizable reports				
	9. Trip data verification- Ability to perform post-trip data verification and easily identify likely verification errors. Ability to manually edit/update trip data after a trip has been completed.				
	10. Trip History-Ability to save trip information and display, edit, or duplicate previously scheduled rides; ability to replay past trips using AVL data and reference bus movement data over a specified date, period, location, etc. The system must track all edits made to trips (what, when, and by whom) and generate associated reports.				
	11. Data ownership-All data is owned by the transit agency and is securely stored on the vendor's cloud. Data must be retained for at least 7 years and easily obtained by Arrowhead.				

DATA AND REPORTING					
	Specification	Yes	No	Add-on	Additional Information
STRONGLY DESIRED	1. Data Transfer-Import of existing RouteMatch passenger and destination data into the new platform				
	2. GTFS Import-Import of GTFS data into the new platform				
OPTIONAL	None				

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CUSTOMER TRIP PLANNING					
	Specification	Yes	No	Add-on	Additional Information
REQUIRED	1. Rider profile customization-Options for: passenger types, suspensions, caretakers/assistants/ attendants, vehicle types, space types, active vs. inactive customer, customer notes, common locations, denials/call back waiting list, etc. Area for entry of dispatcher notes and comments				
	2. White label passenger app-A passenger-facing app that can be rebranded with Arrowhead Transit's logo, colors, etc.				
	3. Customer app and/or web portal- The ability for customers to request trips (possibly schedule trips depending on vendor offerings), receive bus arrival notifications, track buses in real-time, and confirm or cancel rides. Should be able to set notifications by passengers' preferred notification method (text, voice, email, in app alert). Any customer app or web portal must be usable with a screen reader.				
	4. Search filters- Ability to apply multiple filters when searching customers or trips (by name, common locations, rides, unscheduled rides, billing, etc.)				
	5. Automated customer search- The software automatically searches existing customer databases when scheduling and alerts the user to prevent duplication of entry.				
	6. Ridership credentialling- The ability for software to flag a customer who is not eligible for a ride or for a trip not within the service rule parameters.				
	7. Pick-up window information- Ability to provide scheduled times and estimated times based on real-time data.				
	8. Notifications- Automated IVR (Interactive voice response) calls, texts, and emails to customers the night before and at least 5 min prior to arrival if the passenger opts in. Passengers must be able to opt in for more than one communication method.				
	9. Trip Request times- Ability to schedule based on specific pickup/drop-off times, appointment times, and no earlier than/no later than specifications.				
	10. Pick up times- Ability to define the pick-up type (curb-to-curb, door-to-door, etc.) by passenger and trip				
	11. No-show management- Ability to manage/respond to no-shows in real time via software and tablets (timer, notifications, etc.)				

CUSTOMER TRIP PLANNING					
	Specification	Yes	No	Add-on	Additional Information
	12. Semi-clustering- Ability for semi-clustering for shared destination/pickup locations (run optimizer schedules all pick-ups/drop offs at the same time instead of creating multiple additional stops along a run).				
	13. Stop ridership adjustment- Must allow operators to adjust the number of passengers picked up at a location.				
STRONGLY DESIRED	1. Third Party Payee-The application must be capable of capturing Medicare, Medicaid, and other third-party payee information.				
	2. Fare determination- Automatically calculates fare based on fare policy and trip.				
	3. Customer policy violation tracking- Ability to customize and actively manage customer violation information, and ability to view during ride scheduling.				
OPTIONAL	1. Third Party trip scheduling and management- Ability for third party contract partners to submit ride requests for individuals through an online portal.				

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