

CTRTRD ITS System Evaluation and Demonstration

Overview

The top three Proposers will demonstrate the capabilities of its software. The proposed system should demonstrate the following key areas specifically with CARR data:

- Generate a schedule(s) for trips booked for one day
- Download Schedules to MDC unit
- Driver functionality on MDC Units
- Dispatch Views /Capabilities
- Trip Verification for day
- Billing for day
- Reporting
- Percentage of existing CARR addresses that can be automatically geo-coded.

The generated schedule will be compared to CTRTRD's current scheduling method. The demo will also include the ability to view the schedule through the MDC Units to show end-to-end operational capabilities. The vendor should be prepared to leave electronic or hard copy printouts of sample generated schedules, as these will be used when evaluating the software.

All other functionality demonstrations may be accomplished with Vendor sample data.

The demonstration should also show a fully integrated system including MDC/AVL units.

CTRTRD Geocoding Address Evaluation

CTRTRD will evaluate the selected three Proposer's Geocoding functionality. The coordinates (Latitude/Longitude) of the Geocoded addresses generated by Proposer's system will be compared to the coordinates (Latitude /Longitude) generated by Google Maps and ESRI. In order to perform the evaluation, the following steps will be followed by CTRTRD and Proposer:

- CTRTD will provide all addresses used within the last year from ATE application in either MS Access or .csv format to Proposer
- Proposer will perform “batch” Geocoding on all addresses using their system.
- Proposer will provide addresses and corresponding coordinates (Latitude/Longitude) to CTRTD in a spreadsheet. NOTE: CTRTD will provide proposer the spreadsheet format. Proposer should not change the order of the addresses since it will impact the evaluation.
- Proposer will document and provide CTRTD reasons if any addresses cannot be Geocoded and provide solutions to be considered during implementation.
- CTRTD will perform coordinate comparison using defined threshold.

CTRTD sample data

Sample CTRTD data will be ‘scrubbed’ of confidential information such as true passenger names prior to being provided to each vendor.

All addresses used within the last year will be in the dataset. All other data will be limited to data required for one day’s worth of trips.

Data will be extracted from the current ATE system, which stores data in the following tables. Data will be provided in a CSV format.

- CLIENT - Client/Riders
- APPOINT - Trips by Client
- DEST - Destinations
- DRIVER - Route Drivers
- ROUTE - Passenger Route Info

- TRIPTYPE - Type of Trip
- VEHICLE - Vans and Busses
- REPEAT - Repeating Appointments
- SCHROUTE - Scheduled Routes
- CITYZIP

Configuration Parameters

CTRDT realizes that each system has many configuration/tuning parameters that can produce different results within the same system. The vendor should demonstrate their system using configuration parameters that they would recommend for a transit agency similar in size and operations to CTRTD. Vendor should highlight and explain configuration parameters that may be adjusted and *may demonstrate multiple outcomes*, particularly in scheduling. The vendor should also be prepared to adjust parameters as requested by CTRTD during the demonstration to show alternative system behavior.

Demonstration

The vendor is encouraged to demonstrate as many of the requirements listed below as possible. Functionality to be demonstrated using CTRTD sample data is identified by a **Y** in the ‘**Demonstrate with CTRTD data column**’.

The functions or tasks listed below should not be viewed as the complete functionality of the Vendor's system. The Vendor should demonstrate any other functionality that will provide CTRTD a complete representation of the system's capabilities.

Requirement #	Short Description	Demonstrate with CTRTD data			
System Configuration					
2.2.1	Allow the System Administrator to add new fields required				
2.2.2	Allow the System Administrator to add additional items to pull-down list				
2.2.3	Allow the System Administrator to define user, user security and functionality allowed				
2.2.4	Allow the System Administrator to define/edit various Funding Sources with corresponding parameters for each to calculate trip cost				
2.2.5	Allow the System Administrator to define criteria for “same day” trip creation				
2.2.6	Allow the System Administrator to define Service Areas				
2.2.7	Allow the System Administrator to configure traffic patterns				
2.2.8	Allow the System Administrator to configure Underage Rider parameters				
2.2.9	Allow the System Administrator to configure mobility types				
2.2.10	Allow the System Administrator to define rules for passenger “No-Shows” and “Cancellation”.				
2.2.11	Allow the System Administrator to define notification recipients.				
Driver Functionality					
2.2.12	Provide ability for driver to update trip information and trip status on	Y			

	MDC Unit.				
2.2.13	Provide capability for drivers to send and receive two-way messages				
2.2.14	Provide ability for driver to confirm “no-show” trip.	Y			
2.2.15	Provide ability for driver to enter pre-trip vehicle information				
2.2.16	Provide ability to capture time sheet data				
2.2.17	Provide a web-site to create complete driver time sheets				
2.2.18	Provide ability to update passenger information with passenger issues.				
2.2.19	System should track number of passenger issues.				
2.2.20	System needs to capture signatures from passengers, in the future				
Driver Management					
2.2.21	Provide ability to store driver information				
2.2.22	System should check driver qualifications				
2.2.23	Provide ability to document driver issues				
2.2.24	System should check driver certifications renewal date				
Passenger Management					
2.2.25	Provide ability to add passengers				
2.2.26	Provide ability to edit passenger information	Y			
2.2.27	Provide ability to generate warnings for Underage Rider				
2.2.28	System should have the capability to “auto-populate” or “auto-correct” passenger information				
2.2.29	Provide ability to add any passenger issues	Y			
2.2.30	System should track number of passenger issues				
2.2.31	Provide ability to enter any passenger complaints				
Address Management					
2.2.32	Provide ability to add addresses	Y	Demonstrate adding a few addresses, all other addresses in CTRTD data can be pre-loaded.		
2.2.33	Provide ability to edit addresses	Y			
2.2.34	System should have the ability to Geocode addresses	Y			

2.2.35	Provide ability to Auto-Geocode in batch mode	Y	Illustrate percentage of addresses that were auto geo-coded		
2.2.36	Display addresses that are not Geocoded	Y			
Trip Management					
2.2.37	Provide ability to create trips	Y	Demonstrate adding 1-2 trips, all other trips in CTRTD data can be pre-loaded.		
2.2.38	System should validate trip date	Y			
2.2.39	Allow user to create new address and Geocode on the fly	Y			
2.2.40	System should prompt user for data specific to a destination address	Y			
2.2.41	System should calculate ETA (Estimated Time of Arrival)	Y			
2.2.42	System should automatically calculate trip cost	Y	Using sample billing for an actual trip		
Scheduling					
2.2.43	Schedule all trips automatically	Y			
2.2.44	Allow user to override or accept schedule	Y			
2.2.45	Allow user to add to existing schedule	Y			
2.2.46	Allow user to manually un-schedule a trip	Y			
Dispatch Functionality					
2.2.47	Send information such as passenger, schedule or route changes to drivers	Y			
2.2.48	Provide ability to update trip for “ready for pick-up”	Y			
2.2.49	Allow Dispatch to update trip information and status	Y			
2.2.50	Provide ability to notify driver that passenger has called multiple times	Y			
2.2.51	Allow Dispatch to reassign trip to another driver	Y			
2.2.52	Allow Dispatch to “Add-On” Trip for any type of funding source	Y			
2.2.53	Allow Dispatch to view vehicle location on GIS Map				
MDC Unit Requirements and Functionality					

2.2.54	Download of schedule and route information to MDC	Y			
2.2.55	Emergency button available on MDC Unit				
2.2.56	Ability to view GIS maps and vehicle locations	Y			
2.2.57	Capture all trip related information using the MDC unit.	Y			
2.2.58	MDC Unit must integrate with MOTOTRBO™ XPR™ 4550 Mobile Radios				
2.2.59	Communicate data to driver via MDC Unit				
2.2.60	Provide ability to notify driver multiple times that passenger has called	Y			
AVL Requirements and Functionality					
2.2.61	Automatically track vehicle using GPS location in real-time				
2.2.62	Ability to set-up AVL filtering for search capability				
2.2.63	Update GPS points based on pre-determined time interval				
2.2.64	Ability to playback captured data				
2.2.65	Ability to integrate to vehicle odometer				
IVR Functionality					
2.2.66	Automatically notifies passenger of any schedule changes or notifies passenger of vehicle status				
2.2.67	IVR System should have to capability for custom messages				
2.2.68	IVR System should allow passenger to confirm or cancel trip				
2.2.69	IVR System should allow passenger to call for pickup				
Billing Requirements					
2.2.70	Calculate trip cost for MTP trips	Y	Using sample billing for actual trips		
2.2.71	Calculate trip cost for trips based on mileage	Y	Using sample billing for actual trips		
2.2.72	Calculate trip cost based on flat fee		Using sample billing for actual trips		
Reporting Requirements					
2.2.73	Allow the user to generate reports – See Attachment B				
2.2.74	Reports should be available in different formats				

2.2.75	Ability to generate PTN 128 report				
Vehicle Management and Maintenance					
2.2.76	Ability to add vehicle				
2.2.77	Ability to edit vehicle information				
2.2.78	Allow Driver or Fleet Manager to update vehicle status				
2.2.79	Provide ability to update Vehicle Maintenance Schedule.				
2.2.80	System should automatically send out a notification when vehicle maintenance is due.				
GIS Map Requirements and Functionality					
2.2.81	Allow user to manually Geocode by selecting location on map	Y			
2.2.82	View vehicle location and routes on map				
2.2.83	Maps must be kept current by vendor				
Contractor Management					
2.2.84	Provide ability to create/edit Contractors				
2.2.85	Provide ability to add Contractor issues				
General Requirements					
2.2.86	Data stored in centralized data repository				
2.2.87	Migrate current ATE data				
2.2.88	Need to provide Remote Access to system				
2.2.89	Ability to hire local resources to maintain and support “on-board” vehicle equipment.				
2.2.90	Develop and implement disaster /recovery plan				