



MEMORANDUM

TO: Fox Cities Transit Commission, City of Appleton Common Council

FROM: Ron McDonald, General Manager

DATE: November 10, 2022

RE: Award Recommendation for In-Vehicle Network System Vendor

BACKGROUND

Valley Transit's fixed-route vehicles are equipped with several onboard products that require cell data to communicate with cloud-based software and enable features to function properly. The primary onboard product utilizing cell data is our automatic vehicle location (AVL) system. The AVL system provides service data and vehicle location updates to the cloud, which enables the proper function of onboard passenger information systems (stop announcements, board/alight data, interior and exterior sign messaging); assists staff with service oversight; and supplies data to our public bus tracking application.

In addition to the AVL system, other onboard products that currently do not use mobile data can be enhanced or modernized with access to cell data. This includes Valley Transit's next fare payment system, which will require cell data to expand customer payment options.

The agreement with Valley Transit's current AVL system vendor, DoubleMap, includes the provision of cell data. DoubleMap's onboard tablet houses a SIM card that enables the vendor's data plan for use by their system. This set-up limits access to only the AVL system and is not capable of supplying cell data to other onboard products. The DoubleMap system is being discontinued by the vendor. In response, Valley Transit has recently begun the procurement process to select another AVL solution to replace DoubleMap in 2023. The replacement system will require cell data to operate.

Valley Transit discussed data communication options with several AVL vendors, peer transit systems and City of Appleton IT staff. This planning was required to prepare for Valley Transit's next AVL system vendor (summer, 2023) and other onboard technologies in the future. The clear consensus is for Valley Transit to directly purchase its own cell data plan and related hardware (GPS antenna & rugged router) to supply cell data to applicable future applications/products onboard transit vehicles.

ANALYSIS

The Appleton Police Department (APD) recently purchased an in-vehicle network system for squad cars from Cellcom (De Pere, WI). The project hardware included Cradlepoint routers and exterior GPS antennas for each vehicle. The project also included an unlimited data plan and license to cloud management software, called NetCloud. The unlimited data plan is designed for "first responders" and is not throttled or restricted by Cellcom. The cloud management software enables remote access to each router in the field. This improves system oversight and will allow some support, maintenance or update tasks to occur without pulling the vehicle from service. The system provided by Cellcom to APD meets all requirements for Valley Transit vehicles.

Valley Transit is requesting a sole source purchase with Cellcom to implement a similar in-vehicle network system onboard each transit vehicle. The decision to sole source with Cellcom is based on the City of Appleton and APD's existing relationship with Cellcom, product uniformity and cost savings. Cellcom is extending the same first responder unlimited data plan to Valley Transit. The data plan cost is significantly discounted for the public sector. System uniformity will enable a single cloud management software platform for City IT staff. It will also save resources concerning install, training, repair and troubleshooting.

Valley Transit staff have reviewed this recommendation with City of Appleton IT staff familiar with the APD project. The sole source decision was reviewed and approved by City of Appleton purchasing staff.

FISCAL IMPACT

The initial hardware cost is \$55,650.71. This amount includes a router, GPS antenna, and cloud management system license for all transit revenue vehicles (29). The annual data plan fleet-wide would cost \$11, 832. Valley Transit requests an additional 10% contingency (\$6,748) for unknown costs. This brings the total year one implementation cost to \$74,230.71. Existing federal grants would cover 80% of total project cost. The remaining cost would be expensed from Valley Transit's annual budget.

After project year-one, the ongoing annual unlimited data plan cost is \$11,832 for 29 vehicles.

Please note that this in-vehicle network system purchase will remove the provision of cell data and related cost from the upcoming AVL system project budget and future onboard systems requiring cell data.

RECOMMENDATION

Staff recommends authorization for Valley Transit to complete a sole source purchase with Cellcom, De Pere, WI.