October 30, 2014

To: **MVTA Board**

From   **Michael Abegg, Planner**

Subject: **UPDATE: MVTA and Regional AVL Projects**

<u>Requested Action</u>
None, update only.

<u>Background</u>
Staff have been working to determine the best course of action for MVTA in regard to the regional AVL project, that after over two years of discussion, appears finally ready to more forward. MVTA is included as an option within the Council's contract with Continental. The cost of this option is understood to be about $2 million, although MVTA has thus far not obtained a copy of the contract.

MVTA's exclusion from the base contract was at MVTA's request, not the Council's. MVTA staff have concluded that the Transitmaster system, as currently deployed for Metro Transit and as planned for extension to the regional fleet, may not be the best option to meet MVTA's needs for management of its own services as well as to share data on a regionwide basis. Thus MVTA has been exploring alternate means of obtaining a CAD/AVL product more suited to its particular needs.

This issue is timely due to the UPA Transit Technology project that is being deployed. Real-time vehicle location data from Metro Transit and MVTA buses needs to be piped to two components of this system: Real-Time Signage to be installed (among other locations) at Burnsville Transit Station and at the downtown Minneapolis stops that MVTA uses; and the real-time freeway travel time sign program. These projects are driving MVTA's need to deliver a usable AVL project very quickly.

Staff have been exploring the fact that our current voice communication system uses the Nextel IDEN data system, which (unlike the radio system used by Metro Transit and Southwest) has embedded GPS chips in the cell phones installed on the buses. As approved by the Board in January, MVTA is in a "test-deployment" stage using the Nextel architecture. We have thus far concluded that the primary data product, Telenav Track, is better suited for other types of mobile work applications (utility companies, construction and trade contractors) and requires quite a bit of development to serve as a transit CAD/AVL product.

Last fall, MVTA became aware of a project in Northern Virginia that also uses the Nextel IDEN architecture to provide real transit CAD/AVL. The possibility of deploying, at moderate expense, a system without any additional investment in on-bus hardware presents a tremendous opportunity. In addition, the licensing of the MARTHA software under Free Open-Source Software principles is quite attractive to MVTA given the challenges encountered in recent years using proprietary technology systems such as the fareboxes and smart card readers. The Virginia evaluation ballparked a cost of approximately $115,000 up-front and $75,000 annually to deploy the system on a fleet of MVTA's size.

At the same time, it is clear that a deployment for MVTA would represent an significant leap compared with the Virginia deployment. There are some additional features that MVTA requires, along with simply the need to scale the deployment size. However, MVTA also has some existing resources (such as Hastus scheduling software) that provide some advantages compared with the Virginia project.

MVTA staff is interested in exploring the extent to which the MARTHA architecture can be leveraged for its needs. MVTA has approached IBI Group to open a discussion on the potential of the MARTHA system. As developers of the software, no other firm has the working knowledge of the existing product's abilities and deficiencies; second, IBI is familiar already with some portions of the UPA Transit Technology projects; and third, as a company with established history in both technology and transit projects, it is presumed that IBI would be able to more quickly understand and resolve MVTA's needs than a company with experience in only one of the two areas.

That said, staff expects that MVTA will need to conduct an open procurement for the services required under this project. At this stage, what is most critical is quickly understanding whether the MARTHA project has the potential to be deployed by year-end to provide the level of compatibility with the UPA projects that is required.

Impact
See above.

Recommendation
None needed at this time; update only.

MA/