



Transportation Committee

July 31, 2012

Connect Card Contract Amendment

Issue: The Connect Card Governance Committee, representing a consortium of transit operators and SACOG, is recommending that SACOG amend the Innovations in Transportation (INIT) vendor contract by adding \$36,958 of project contingency budget to the previously authorized contract amount of \$103,000 approved by the Board in April 2012.

Recommendation: That the Transportation Committee recommend that the Board amend the INIT contract to purchase MSM466 radios with both a 2.4 ghz and 5 ghz antenna for the wireless radio technology (WiFi) to 176 light rail station smart card validation devices at a cost of \$139,958 that will be funded through \$103,000 approved by the Board in April 2012 and an additional \$36,958 from the project contingency budget that is anticipated to be recovered through future cost savings.

Discussion: At its April meeting, the Transportation Committee approved an amendment to the Connect Card contract for the purchase of WiFi for smart card validators (PROXmobil2) that will be installed on light rail stations in the Sacramento Regional Transit District (RT). Since that time, the project team has identified notable long-term benefits from the implementation of an enhanced technology that costs a slightly higher amount.

The initial technical specification for PROXmobil2 called for 2.4 ghz antenna, but following site evaluations by RT staff and a hired WiFi consultant, as well as discussions with the Connect Card vendor INIT, SACOG staff recommends that INIT install technology that includes both a 2.4 ghz and a 5.0 ghz antennas on the PROXmobil2s. The 5.0 ghz antenna offers improved signal quality for the upload and download of data, such as fare added to and deducted from smart cards, and “fare evader” information. SACOG and RT staff believe the 2.4 ghz antenna is insufficient at many light rail platforms, given the significant number of competing networks, which will result in minimal broadband capabilities. The addition of a 5.0 ghz antenna will greatly increase the opportunity for communications between the smart card validation devices and the central system.

INIT is under contract to design, build, and deploy the Connect Card. The current fixed price contract with INIT, signed in July 2011, is in the amount of \$8,064,915. As the selected vendor, INIT is obligated to deliver the negotiated Technical Specification, which defines delivery of a fully functional smart card system in full revenue service. Included in system hardware are smart media validators (PROXmobile2) that will be installed on all light rail platforms.

Enhancing the functionality of the PROXstation2 units with WiFi will significantly mitigate project risk now and in the future. The alternative to WiFi is trenching in platform areas and installing Ethernet cabling. Unanticipated challenges often manifest themselves during underground construction, sometimes with high associated costs. Of particular concern is the original light rail line because of the complex urban environment and the expedited construction techniques of the time. WiFi communications at the light rail stations will largely avoid these risks. RT is performing the preparatory construction and engineering work on the light rail platforms.

The use of WiFi will be less expensive on a per-unit, station-by-station basis with the currently known construction parameters. The latest engineering analysis estimates that the project will recover 91 percent of the investment immediately during the course of light rail preparation work. Future savings are expected to restore the contingency budget, since RT wishes to procure additional validators as resources allow. With development costs sunk into the initial purchase, the additional per unit costs of the WiFi capable PROXstation2 will be negligible and will provide great flexibility in engineering design.

Approved by:

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