



communications, inc.

Philadelphia Office: 73 Chestnut Road, Suite 301, Paoli, PA 19301 P/ (610) 889-7470 F/ (610) 889-7475

St. Paul Office: 1597 Race Street, St. Paul, MN 55102 P/ (651) 340-5300 F/ (651) 340-5820

www.cbgcommunications.com

MEMORANDUM

TO: PAUL BERLANT
EXECUTIVE OFFICER, MARIN GENERAL SERVICES AUTHORITY

FROM: DICK NIELSEN, SR. ENGINEER, CBG COMMUNICATIONS, INC.

SUBJECT: FURTHER UPDATE ON WIRELESS BROADBAND PILOT PROJECT

DATE: JANUARY 5, 2009

CC: TOM ROBINSON, EXECUTIVE VICE PRESIDENT, CBG COMMUNICATIONS, INC.

CBG Communications, Inc. (CBG), as part of its project for the Marin General Services Authority (MGSA) has continued to work with Golden Gate Transit (GGT) on a wireless broadband on busses pilot project. As detailed in earlier memorandums, GGT implemented a pilot project utilizing a cellular wireless-based backhaul to the Internet from select busses operating on long routes from Marin and Sonoma Counties to downtown San Francisco and on the return routes. This cellular backhaul is then connected to a Wi-Fi router on the busses allowing passengers to connect to the network and the Internet. CBG's objective concerning the pilot is to determine the technical capabilities and performance of the system, its utility for users and its application to other potential wireless broadband implementations. As part of this, CBG worked with the GGT to develop surveys to better understand the impact of Internet access aboard the busses operated by the GGT, including the effect it has on ridership and riders' satisfaction with GGT's overall service.

Preliminary Findings of GGT Pilot Project Surveys

GGT has provided the surveys to its riders on the routes currently offered Internet service. These routes are 72X and 75. These surveys are designed to ascertain the overall satisfaction with the busses' wireless broadband network's speed, availability, perceived reliability and the network's ability to enable applications useful to riders on these routes. In addition, the survey is providing demographic information, which will be cross-analyzed to further understand the population most likely to see a benefit from Internet access in areas not traditionally provided such access.

An initial usage survey, and subsequent continual weekly usage surveys (filled out weekly by participating riders), was deployed in early October with an associated demographics survey then deployed in late November 2008. Information gathering is ending as this memorandum is written and therefore the findings herein are preliminary. However, early results show some interesting findings. For example, riders' overall satisfaction with the network is very favorable with perception of the network's speed being rated fast or moderate by over 90% of survey respondents. Riders report utilizing the network to perform tasks such as banking, research, purchasing or selling merchandise, e-mailing, file sharing and obtaining news and information. Watching videos and playing games also are satisfactorily enabled by the network. Approximately 75% of respondents have said Internet access aboard the buses is important or very important to them with an additional 15% saying it is at least somewhat important (for a total of 90% indicating that this service has some level of importance to them).

The demographics of the users varies and although preliminary, the results to this point indicate users are more often middle aged males who own homes, and are traveling to or from work. Another interesting preliminary finding is the respondent's view that internet access, such as that being offered onboard the busses, should be expanded to include other ancillary areas such as bus terminals and bus stops.

Next Steps

CBG will analyze the information gathered from the above mentioned surveys and provide the MGSA with the final findings of the surveys and pilot project at its March, 2009 meeting. This information will provide significant background for the MGSA Board to determine how to move forward with next steps of the Wireless Marin program in the various jurisdictions served by the MGSA.

Please do not hesitate to contact me if you have any questions or need additional information.