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MEMORANDUM

Date: November 8, 2007

To: Michael Garvey
MGSA Interim Executive Officer

From: Tom Robinson
Executive Vice President
CBG Communications, Inc.

cc: Dick Nielsen
CBG Communications, Inc.

**SUBJECT: AGENDA ITEM F: WIRELESS BROADBAND PROJECT REVIEW
AND UPDATE**

During our September 13th meeting with the MGSA Board and our follow-up meeting with members of the Wireless Marin Advisory Committee (Committee) on October 11th, it was determined that the Wireless Marin project should move forward to identify specific commitments for funding, the probable level of utilization and the value that could be realized by implementation of a large wireless broadband network throughout Marin. It was determined that initially existing networks should be leveraged in order to begin this identification of the value and utilization of, and potential funding sources for, a County-wide network. In this regard, we began this phase of the project by reviewing three significant wireless projects in place and/or in development in Marin that could be leveraged and then enhanced as part of cohesive broader effort. These projects are:

Mill Valley

Mill Valley currently has three locations being developed with indoor WiFi hot spots (Access Points – APs). The indoor APs have coverage extending beyond the walls to cover adjacent parking lots, lawn areas, etc.. This allows for remote access from outside the building. This network is being deployed for utilization initially by the Police department, but is planned for expansion to other departments. Of the three locations currently under development, one hot spot is located at the City Hall and will be capable of providing access for both internal City utilization as well as for access by the general public. The Community Center and Police/Fire locations will initially have indoor

wireless network access available for private (internal) utilization. There are plans to add public utilization capability for the Community Center location. It is important to note that the Police department and public agency wireless access is segmented so that it is secure and firewalled from the public access segment. The Police Department access is also encrypted.

The public access portion will be “open” (unsecure) access, however, and raises some key policy questions. These policy questions are currently being explored with the MTA members of the Committee.

The Mill Valley project currently utilizes the MIDAS network for backhaul from the three hot spot locations described above.

Initial discussions have centered on three (3) ways to leverage the Mill Valley project for potential application to a broader effort. First, depending on the availability of funding resources, the hot spots could be expanded to all MIDAS locations in Mill Valley (some funding is available through the MIDAS budget for this). Then, potentially outdoor APs could be added to cover other areas, especially public gathering places such as parks.

Second, applications can be devised and applied to available hot spot use beyond the need to remotely access City and, in the case of the Police, County databases and the Internet. This may include, for example, adding video by leveraging the current project experience in Novato (see below).

Third, based on the findings in Mill Valley, the project could serve as a template for other cities in Marin.

Novato

Although the City of Novato does not currently have significant broadband wireless capabilities beyond cellular-based broadband, efforts are underway to deploy wireless devices for public safety use in the near term to allow for “drive-by” uploads and downloads of data, including live and archived video, from police cars, as well as receive data and video from a variety of fixed locations including parks, banks, schools, high crime areas, etc., throughout portions of the City. This video will ultimately be accessible by the dispatch centers and Emergency Operations Centers as well as patrol vehicles and via PDAs connected to the network. To date, the City’s police cars have been outfitted with equipment capable of producing, storing and transmitting video, through a funding combination of primarily grant funds and some police budgetary funds. At present, this video information is uploaded to the City’s network via wired connections at Police headquarters. The City has begun to implement a primary hot spot at Police headquarters and the City’s goal is to begin adding additional hot spots beginning with the downtown core, to facilitate both remote and realtime uploading of video and other data to the City’s network.

As the Police department is looking at potential funding sources for building the downtown core network, MIDAS personnel are also talking to the City's IT department about a Mill Valley-like implementation to add public agency and general public network access to the mix. If this can be accomplished, then we would seek to apply a project leveraging and expansion process, similar to that described above for Mill Valley, to Novato to build its initiative into a broader effort.

Libraries

The Marin County Free Library system currently offers wireless broadband access to the general public at its locations. These networks are designed to provide Internet access within, and in open spaces, parking lots, lawn areas, terraces and other areas adjacent to, the buildings so people can access the Internet through their personal laptops as well as with Library-owned computers (many of the Libraries' computers are currently utilizing wired connections for Internet access).

Access through the wireless hot spots at libraries also raises policy issues that will need to be addressed. Among these are whether public access to the networks and subsequent utilization of MIDAS infrastructure by the public beyond that which is provided as a public service by the Libraries is allowed by current agreements with the companies providing the infrastructure for MIDAS. In addition, as discussed above for the Mill Valley project, access to the library is completely "open" (unsecure) and there may need to be additional utilization policies put in place.

Discussion indicates that the Libraries' hot spots could also be leveraged as part of building publicly and public agency accessible "hot zones" and subsequently a broader network throughout Marin. It will be important, though, to explore and resolve the aforementioned policy issues as part of the network development process.

Other Project Elements

There are at least two other new efforts being explored as part of potential pilot project development and broader network possibility analysis.

Utilization While in Transit

We are continuing to explore a possible project that could provide significant information regarding wireless network utilization, where free aircards for obtaining Internet access via cellular networks that are currently in place are offered to a number of different persons and then their level of utilization of the network is tracked in various ways. This would be especially valuable in determining the level of potential utilization by the public on local mass transit. This would also help determine the value of a network that would provide wireless access throughout the 101 corridor within Marin.

Participation by the Golden Gate Bridge District and the Marin County Transit Agency would be explored as part of this pilot and would also allow these entities to determine the utilization by, and therefore the value of, a wireless network to its employees as well to the general public.

Potential Vendor Partners

We are beginning the process of identifying contacts for various vendors (Sprint/Clearwire, T-Mobile, AT&T, Verizon, etc.) to discuss potential partnerships for funding and developing both the public transit/101 corridor pilot as well as potentially wider network expansion from hot spots to hot zones to broader networks.

Additionally, we have recently been approached by the non-profit group, SeaKay, who, in partnership most likely with Motorola, is interested in developing one or more hot zone pilots in West Marin. Initial indications are that SeaKay would need public agency user monetary commitments in order to help reimburse the cost of hot zone development and that they wish to begin development before the end of this year. A significantly greater amount of detail needs to be discussed with SeaKay in order to determine the viability of their proposal (especially concerning the timing and funding requirements). We will continue to pursue such detail with SeaKay.

Next Steps

Overall, then, there is positive activity on a number of fronts. Our next objective is to provide additional detail and obtain a great deal of feedback when we meet with the Municipal Managers Association (MMA) on December 7th.

Please don't hesitate to contact me if you or the MGSA Board has any questions or needs additional information at this time.