



To: Bay Area UASI Approval Authority
From: Barry Fraser, BayWEB Project Manager
Date: May 10, 2012
Re: Item 9: BayRICS Authority Update for May 2012

Action or Discussion Item:

Discussion Only

Staff Recommendation:

Discussion Only

BAYRICS AUTHORITY UPDATE

Staff activities in a number of key areas are described below.

1. BayRICS Authority Administration

At the May 3, 2012 BayRICS Authority Board meeting, the BayRICS Board will review and may approve BayRICS Authority Bylaws, a Conflict of Interest Statement and Guiding Principles to inform and guide staff regarding policy decisions. Staff will also present a proposed budget for Fiscal Year 2012-2013 to the Board for approval at the May 3 meeting.

2. Site Status

Staff continues to work with Motorola and site owning jurisdictions to finalize the site configuration for BayWEB. Since the last report, Union City has executed a site agreement with Motorola, and several other cities and the County of San Mateo agreements remain in process. BayRICS staff continues to work with jurisdictions to finalize site agreements in an effort to ensure the greatest number of sites can be built out using BTOP/Motorola funds. The Motorola BOOM agreement currently allows for the substitution of sites without penalty or costs to the BayRICS Authority up until May 31, 2012. Staff will propose that Motorola extend that date for members that have executed site agreements.



Several members, including Sonoma County, Contra Costa County, Alameda County, the City and County of San Francisco and several Cities, are proceeding to conduct permitting and zoning review. Staff and Motorola anticipate that some sites will be available to begin remediation work within the next three-four months.

Staff has been contacted by representatives of both T-Mobile and American Tower Corporation (ATC) to discuss collocation of BayWEB equipment on sites controlled by those two entities. Staff is reviewing potential sites with the goal of filling gaps in the current site configuration or expanding service to new locations. In addition, staff has discussed several potential value opportunities for both the BayRICS Authority and its members.

At the May 3 BayRICS Authority meeting, the BayRICS Board will review a report on the potential costs and benefits of a proposal that the JPA pay for the ongoing costs of eight Santa Clara County controlled radio sites proposed for inclusion in the BayWEB site list.

3. Fiber and Backhaul

a. Microwave Frequencies Coordination

The microwave links required to connect many wireless sites with the backhaul network require a number of microwave spectrum licenses. Staff has determined that the BayRICS Authority is eligible to hold this type of license, and is working with Motorola to complete the license application process.

b. BART

We have completed negotiations with BART on the major points of our agreement. Motorola and BART have a common understanding of what assets are being requested for use and have evaluated the BART sites for inclusion. All parties (BART, Motorola, and BayRICS) understand what work will be required to remediate the sites and fiber network for use by BayWEB.

Motorola has committed \$250,000 towards BART safety monitors and intends to cover the costs to pull fiber and extend service underground if those costs are determined to be grant-eligible. Part of this process necessitates that Motorola seek direction from the NTIA on eligible costs. We have some preliminary indication from NTIA that these costs may be covered by the grant. The remaining costs will not be excessive, and the JPA's position is that these costs should be shared among BART, Motorola and the JPA.



A draft fiber and site agreement has been reviewed by the BayRICS Authority legal counsel and several additional concerns are being addressed. Staff intends to bring both agreements to the BayRICS Board for approval as soon as possible.

c. BayLoop

The TAC and BayLoop Working Group have developed a plan for system maintenance and monitoring for BayLoop facilities. This plan will be discussed at the BayRICS Board meeting on May 3.

d. San Francisco Fiber and Evolved Packet Core (EPC)

Staff continues to discuss fiber and core use agreement with representatives of the City and County of San Francisco to allow fiber connectivity to the enhanced packet core (EPC) to be located at Twin Peaks in San Francisco. Staff anticipates completing a proposed fiber agreement between San Francisco and BayRICS for Board approval in the next few months.

e. CENIC

Staff had several productive conversations with CENIC regarding use of their network and learned that they have a major fiber aggregation point in Sunnyvale and connections to Stanford and San Jose State. CENIC has proposed that we explore the use of school facilities as site locations. We are in the process of developing a strategic partnership document with CENIC to support this collaboration. This type of partnership may provide site and backhaul solutions in areas where jurisdictions have chosen not to contribute sites or backhaul.

4. Regional and State Planning

BayRICS and the Los Angeles Regional Interoperable Communications System Authority (LA-RICS) continue to share information and develop common areas of interest, including developing joint relationships with State of California agencies that will be involved in the planning and development of FirstNet. To that end BayRICS Authority Chair Rich Lucia and staff met with Authority Director Karen Wong of the California Technology Agency on April 9 to discuss coordination with the State on BayWEB expansion and FirstNet planning. Another meeting is proposed with BayRICS, LA-RICS and the State for later in May. In addition, staff is working with Director Wong to schedule a presentation from the State on FirstNet planning for a future BayRICS Authority meeting.



Staff continues to meet with representatives of the Sacramento Region to discuss potential expansion of BayWEB to the Sacramento area.

5. Technical Advisory Committee (TAC) and Working Group Meetings

The TAC had its regular meeting on April 16. The BayLoop Advisory Committee also met on April 19 to finalize a plan for system maintenance and monitoring. TAC Chair and Vice-Chair will provide a detailed report on these meetings at the BayRICS Authority Meeting on May 3.

6. Billing and End User Support Functions

Staff, with input from Motorola, has developed an estimating tool for projecting resources needed to support system administration, billing and end user support functions for BayWEB. An estimated breakdown of responsibilities has been developed and staff is currently working to allocate responsibility between Motorola and BayRICS and estimate the resources required to conduct the work. A summary of these major task areas are identified below:

- 1. System Administration**
 - Initial contact with Agency/End User for Problems
 - Disaster Recovery
 - Manage Network Upgrades with Jurisdictions
 - Manage Preventative Maintenance with Jurisdictions
 - Manage Interagency - relationships / Dispute resolution
 - Establish Emergency Situation Points of Contact (POC)
 - Establish Disaster Recovery POC
 - Federal Regulatory Administration
- 2. Asset Management**
 - Development of Policies and Procedures
 - Ongoing Management
- 3. Application Management**
 - Network Application Standards Development
 - Approval of New Applications
 - Ongoing Management of Applications
- 4. Configuration and Security Management**
 - Service Quality/QoS Standards Development



- Service Quality/QoS Management
- Security Development
- Security Management
- Systems Hardware/Software Updates
- Periodic Reviews with Motorola
- 5. User/Device Management**
 - Development of Policies and Procedures
 - User Activation and Deactivation Management
 - Emergency and Incident Management
 - Periodic Review
- 6. Backhaul Management**
 - Configuration
 - Upgrades and Maintenance
 - Network Monitoring
 - Fault Management/Restoration
- 7. User Billing**
 - Set up agency billing POCs
 - Evaluate Periodic Motorola Invoice
 - Process billing to agency POCs
 - Handle Agency/End User Billing Issues

7. 700MHz Spectrum Waiver and Spectrum Act Update
a. Waver Petition Update

BayRICS has submitted several written comments to the FCC related to the transition the Bay Area’s 700 MHz spectrum rights and to FirstNet interoperability standards currently being developed by the FCC’s Interoperability Board.

BayRICS Authority, joined by the City and County of San Francisco, submitted comments to the FCC on the most expedient and cost-effective way to transition the public safety spectrum authorizations of the waiver recipients to FirstNet Board, as required by the Spectrum Act. BayRICS proposed that best way for the Commission to effect this transition would be to grant interim spectrum rights to BayRICS until such time as the FirstNet Board becomes capable of making a more permanent determination.

BayRICS advised the FCC that any actions that would result in a material delay or outright termination of the waiver would have an adverse impact on network deployment and put at risk the BTOP stimulus funding provided by the American Recovery and Reinvestment Act of 2009. The waiver is a fundamental requirement of the BTOP grant, and NTIA has indicated to the recipients that the grants will be terminated if this material requirement is not met.



BayRICS also requested that the FCC extend waiver recipient spectrum rights to include the additional 10 MHz of D Block spectrum that Congress allocated to FirstNet under the Spectrum Act.

Finally, BayRICS provided the FCC with information about the significant accomplishments made by BayRICS and member jurisdictions to launch BayWEB. Motorola, BayRICS and the many jurisdictions providing sites, backhaul, and other infrastructure to support the system have worked tirelessly over the past twenty months to finalize the system design. BayRICS has developed, and will continue to develop, a wealth of valuable information about best practices and lessons learned for wireless public safety broadband deployments—information that will be critical to the success of FirstNet. By allowing these early build-outs to proceed, the NTIA and eventually the FirstNet Board could gain significant empirical knowledge, thereby allowing FirstNet to jumpstart its work on the nationwide network.

In a second filing, the City and County of San Francisco, City of Oakland and City of San Jose, joined by BayRICS, filed comments requesting that the FCC grant the Waiver Petition of December 23, 2011 and to provide for BayRICS to succeed to the existing lease with PSST, pending ultimate review and approval of the lease by FirstNet. Alternatively, the Cities asked that the Petition be granted in the names of the Bay Area Cities, with approval for them to assign the existing PSST lease to the BayRICS Authority.

Staff also submitted a quarterly report to the FCC on April 18, 2012, as required by the conditions of our waiver order, and submitted comments from TAC to the FCC Interoperability Board.

b. Spectrum Act Update

NTIA Partial Suspension Request: As Staff reported at the April Approval Authority meeting, the NTIA has proposed a temporary, partial suspension of grant funding allocated specifically for LTE equipment (core servers, eNodeB antenna and equipment, end user devices), to give the FirstNet Board time to consider technology design and solutions. The NTIA has expressed a commitment to preserving BTOP grant money for public safety and keeping the money in the current jurisdictions. NTIA will take steps to extend the grant deadlines for public safety grants. NTIA acknowledged that this is a 180° turnaround from the message over the past two years, but that the impact and potential of FirstNet justifies this change of course. NTIA did not specify the length of the suspension and no further details of the suspension are available at the writing of this report.

NTIA has urged grantees to continue to pursue and spend grant funds on site and backhaul acquisition and remediation. BayRICS staff and Motorola agree that the best path now is to



continue our focus on site acquisition, evaluation and preparation, and on backhaul development. We should continue to prepare the sites and backhaul and be ready to install equipment as soon as the NTIA lifts this suspension.

JPA staff is actively monitoring the status of the NTIA request and the roll-out of FirstNet governance, planning and standards, and will keep the UASI Approval Authority members informed about the impact of FirstNet on BayWEB as more details become available.

8. PSST Owner-Operator Committee/Waiver Recipient Working Group (OAC)

Staff and TAC members participate in weekly conference calls of the OAC, in which the twenty-one cities, regions, and states who are authorized by the FCC to build public safety wireless broadband networks discuss policy and technical issues that require common solutions among all waiver recipients. The OAC's efforts over the past month have focused almost exclusively on the development of outreach and supporting materials to guide the FCC on the successful transition of the waiver recipients' spectrum rights and respond to the NTIA's proposal to suspend BTOP grant funding for purchase of LTE equipment. The OAC submitted comments in the FCC's spectrum transition proceeding, which were endorsed and supported by the three Cities and BayRICS.