

BayRICS Authority
STAFF REPORT

DATE: Thursday April 9, 2015
TO: BayRICS Board of Directors
FROM: Barry Fraser, General Manager
SUBJECT: Item 9 - BayLoop Staff Report

RECOMMENDATION:

Approve continued support for BayLoop; authorize the General Manager to execute an extension to the current BayLoop maintenance and monitoring agreement through December 2015, and to identify additional funding sources or alternatives for equipment to complete the network.

Background

BayLoop is a private microwave network connecting 19 radio sites, as well as numerous Public Safety Answering Points (9-1-1 centers), Emergency Operations Centers (EOCs), and other key public safety facilities and throughout the San Francisco Bay Area, and now extending to Sacramento. In 2012, BayRICS took action to oversee maintenance and network monitoring of the regional broadband capacity on BayLoop, as part of the backhaul plan for the BayWEB wireless broadband project. At its November 14, 2013 meeting, the Board approved a request for UASI 14 to continue these maintenance and monitoring services through 2015.

In December 2013, the BayWEB project was terminated. Over the past year, an advisory group of representatives from each of the BayLoop Counties held a series of meetings to identify public safety applications that might operate on BayLoop. The Advisory Group identified several potential uses for BayLoop, but also determined that additional termination equipment and network engineering will be required before regional applications can run over the entire network loop. Preliminary costs are estimated at approximately \$300,000 for the hardware, software and engineering work required to activate up to five County sites.

At the January 8, 2015 Board meeting, staff reported on the status and changed circumstances of the BayLoop system and recommended that the Board continue to support the network in 2015 and beyond, as additional uses of the network are developed. The Board directed staff to conduct additional research to assist the Board in making a decision whether to continue support of BayLoop maintenance and monitoring. This report provides additional information for the Board and an update of the UASI 2015 grant proposal process.

Additional Uses for BayLoop

As reported in January, the BayLoop Advisory Group continues to investigate several public safety applications that might use BayLoop for regional interconnection once the system is completed. The group has proposed that BayLoop could support information sharing applications, such as CopLink and AIREs (as either a primary or redundant link). Several South

Bay Cities have indicated that BayLoop could potentially result in cost savings by replacing expensive "T1" data connections from commercial carriers.

BayLoop Counties also successfully tested multi-functional collaboration tools for emergency incident and event management, such as "WebEOC" for connectivity between County EOCs. The group also identified future uses for BayLoop, such as transport of "red phone" connectivity between EOCs and PSAPs, eventually linking P25 LMR systems via Inter Sub-System Interface (ISSI) technology, or as backhaul capacity for the FirstNet broadband wireless network.

Also, Seismic Warning Systems, Inc. (SWS) met with BayRICS staff in March 2015 to discuss using BayLoop to interconnect its regionally deployed earthquake sensors and deliver early warning alerts. SWS develops and manufactures systems that provide early warning of destructive earthquakes that can minimize property damage, protect infrastructure equipment, and prevent human injury and loss of life.

At this meeting, SWS indicated a strong interest in using BayLoop to collect sensor data and deliver warnings to EOCs and PSAPs. Staff advised SWS that the BayLoop system was currently incapable of supporting such a service because it lacked network equipment discussed above. SWS remains interested in using BayLoop capacity in the future.

Funding to Complete the System

UASI 15 Grant Proposal - BayRICS staff submitted a regional proposal for \$202,316, to purchase equipment and engineering services to complete a "first phase" of BayLoop regional loop. The funds would allow three Counties--Marin, San Mateo and Santa Clara--to begin using BayLoop to roll-out regional data applications. As these Counties demonstrate the value and benefits of the network, additional Counties will be connected to the regional ring. Staff did not request additional funding to continue maintenance and monitoring beyond December 2015, because of the uncertain future status of the system.

The UASI Advisory Group recommended approval of the BayLoop proposal at its meeting on January 23. The UASI Approval Authority is scheduled to review the proposal at its April 8 meeting. The Board should be advised that the finalized funding levels for UASI 2015 have not been announced by DHS, and therefore all grants are contingent on sufficient funding levels.

Recommendations

Staff seeks the Board's authorization to continue support for BayLoop in 2015 and beyond, as additional uses of the network are developed. Staff recommends that the Board approve continued support for BayLoop, authorize the General Manager to execute an extension to the current BayLoop maintenance and monitoring agreement through December 2015, and to continue work with the BayLoop Counties to identify additional funding sources or alternatives for equipment to complete the network.

Alternatively, the Board may end its support for BayLoop, and request that BayLoop member agencies assume sustainment costs until one or more regional uses for BayLoop is identified.

Benefits of continued support include:

- Potential cost savings by eliminating recurring cost of T1 lines for agencies that need to access law enforcement data or other public safety applications;

- Allows redundant voice/data connectivity between County EOCs and dispatch centers during regional incidents, as commercial networks become impacted;
- Potential future transport for P25 voice sub-system interconnection (to achieve fully interoperable regional communications).

Consequences of ending support include:

- Potential loss of \$5+ million in regional assets;
- Counties may abandon parts of the regional asset or appropriate equipment for local use;
- Missed opportunity to utilize broadband link with Sacramento.