Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

OPERATIONS COMMITTEE MEETING

NOTICE OF REGULAR MEETING DATE: February 19, 2021

TIME: 10:00 a.m.

PLACE: Alameda County Office of Homeland Security and Emergency Services,

Room 1013

4985 Broder Blvd., Dublin, CA 94568

Meeting Procedure During Coronavirus (COVID-19) Outbreak:

In keeping with the guidelines provided by the State of California and Alameda County Department of Public Health regarding gatherings during the coronavirus (COVID-19) outbreak, and recommendations to follow social distancing procedures, the East Bay Regional Communications System Authority (EBRCSA) will adopt the following practices during upcoming Operations Committee meeting:

- The EBRCSA Operations Committee will hold the meetings remotely via Zoom Video Communications.
- The Public will have access to the meeting via a telephonic option by calling: 16699009128 Meeting ID: 955 0186 9324 Passcode 435669
- The Public will have access to all materials via the EBRCSA Web Site, http://www.ebrcsa.org/default.page. The material will be under the header Calendar, then Operations Committee, and then February 19, 2021.
- The Public will be asked if there is any comment or question concerning the meeting during the Public Comment Period and as each item is discussed.
- The Speaker may provide their name for the record if they so choose

AGENDA

- 1. Call to Order/Roll Call
- 2. Public Comments (Meeting Open to the Public):
 At this time, the public is permitted to address the Committee on items within the Committee's subj

At this time, the public is permitted to address the Committee on items within the Committee's subject matter jurisdiction that do not appear on the agenda. Please limit comments to a maximum of three (3) minutes. If you wish to comment on an item that is on the agenda, please wait until the item is read for consideration.

- 3. Approval of Minutes of the November 6, 2020 Regular Operations Committee Meeting
- 4. Provide Direction on Budget Adjustment FY 20/21
- 5. Provide Direction regarding Development of San Ramon Site at Wiedemann Ranch
- **6.** Provide Direction regarding Department of Justice Bulletin 20-09 CJIS on Encryption
- 7. Consider Revision to 2021 EBRCSA Meeting Schedule
- 8. Receive an Update on the City of Antioch
- 9. Receive an Update on the City Vallejo
- 10. Receive an Update on TDMA Time Division Multiple Access
- 11. Receive an Update on 10 Year Plan
- 12. Agenda Items for Next Meeting
- 13. Adjournment

This AGENDA is posted in accordance with Government Code Section 54954.2(a)

If requested, pursuant to Government Code Section 54953.2, this agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Section 12132), and the federal rules and regulations adopted in implementation thereof. To make a request for disability-related modification or accommodation, please contact the EBRCSA at (925) 803-7802 at least 72 hours in advance of the meeting.

I hereby certify that the attached agenda was posted 72 hours before the noted meeting.

from Mc Carthy

Tom McCarthy, Executive Director February 14, 2021

Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

AGENDA ITEM NO. 3.

AGENDA STATEMENT OPERATIONS COMMITTEE MEETING MEETING DATE: February 19, 2021

TO: Operations Committee

East Bay Regional Communications System Authority (EBRCSA)

FROM: Tom McCarthy, Executive Director

East Bay Regional Communications System Authority

SUBJECT: Approval of Minutes of the November 6, 2020 Regular Operations Committee

Meeting

RECOMMENDATIONS:

Approve the minutes of the November 6, 2020 Regular Operations Committee Meeting.

SUMMARY/DISCUSSION:

The Operations Committee will consider approval of the minutes of the November 6, 2020 Regular Operations Committee Meeting.

RECOMMENDED ACTION:

It is recommended that the Committee approve the minutes of the November 6, 2020 Operations Committee Meeting.



Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

OPERATIONS COMMITTEE MEETING

REGULAR MEETING DATE: November 6, 2020

TIME: 10:00 a.m.

PLACE: Alameda County Office of Homeland Security and Emergency Services,

Room 1013

4985 Broder Blvd., Dublin, CA 94568

MINUTES

1. Call to Order/Roll Call: A Regular meeting of the Operations Committee was held on November 6, 2020, remotely via Zoom Video Communications. The meeting was called to order at 10:00 a.m.

Committee Members Present:

- G. Ahern, Sheriff, Alameda County Sheriff's Office
- C. Nice, Assistant Sheriff, Alameda County Sheriff's Office
- N. Luby, Deputy Chief, Oakland Fire Department
- P. Meyer, Chief, San Ramon Valley Fire Protection District
- P. Mulligan, Chief of Inspectors, Contra Costa District Attorney

Staff:

- T. McCarthy, Executive Director
- C. Soto, Administrative Assistant

Public:

- G. Poole, Motorola Representative
- 2. Public Comments: None.
- 3. Approval of Minutes of the September 4, 2020 Regular Operations Committee Meeting

On motion of Bm. Nice, seconded by Bm. Mulligan and by unanimous vote, the Operations Committee approved the minutes of the September 4, 2020 Regular Operations Committee meeting.

4. Provide Direction on Budget Adjustments FY 19/20 and FY 20/21

Director McCarthy presented the staff report and advised that these budget adjustments had been reviewed and approved by the Operations Committee at its September 4, 2020 regular meeting for consideration by the full Board at the scheduled September 25, 2020 Board meeting. They were included in this agenda as that Board meeting had been cancelled.

5. Provide Direction regarding Transition of EBRCSA to Ethernet/MPLS (Multiprotocol Label Switching)

Director McCarthy advised the Operations Committee heard and approved this item at its September 4, 2020 meeting, and subsequently, the Finance Committee directed a subcommittee of the Finance Committee be set up to discuss this item. The subcommittee met and decided to recommended Motorola Solutions Inc. for the project, and to combine the funding of the current TDMA project with the Ethernet/MPLS project. The combined TDMA and Ethernet/MPLS project will have a Principal of \$11,817,950.00 at an interest rate of 1.77%. The lease to own would be from December 1, 2021 to December 1, 2027. This would not cause an increase in radio fees.

On motion of Bm. Nice, seconded by Bm. Luby and by unanimous vote, the Operations Committee agreed to recommend to the full Board, the awarding of the Ethernet/MPLS Project to Motorola Solutions Inc., and combine the financing of this project with the current TDMA project, also with Motorola for a combined principal of \$11,817,959 at an interest rate of 1.77%. The lease to own would be from December 1, 2021 to December 1, 2027.

6. Provide Direction regarding Appointment of Two Members of Operations Committee to a Subcommittee to assist in Recommendation of Compensation for Executive Director

Director McCarthy advised this item would provide a subcommittee to discuss compensation for the Executive Director. The subcommittee would also include two members of the Finance Committee, and the Board Chair.

By consensus, the Operations Committee agreed to appoint Bms. Luby and Mulligan to serve on the subcommittee to assist in recommendation of compensation for the Executive Director, and appointed Bm. Nice as an alternate.

7. 2021 EBRCSA Draft Calendar Committee and Board Meetings

Director McCarthy advised that this was a recommended Draft Calendar for 2021 EBRCSA Committee and Board meetings.

On motion of Bm. Nice, seconded by Bm. Mulligan and by unanimous vote, the Operations Committee approved for recommendation to the full Board, the Draft Calendar for 2021 EBRCSA Committee and Board meetings.

8. Discussion of Nominations for the Board of Directors Chair and Vice Chair to be Voted on and Take Effect at the Close of the Meeting on December 4, 2020

Director McCarthy advised that the nominations for Board of Directors Chair and Vice Chair would be heard at the December 4, 2021 Board meeting.

Chair Ahern stated he would like his name entered into consideration for the Chair.

On motion of Bm. Nice, seconded by Bm. Meyer, and by unanimous vote, the Operations Committee recommended Chair Ahern be nominated for Board Chair for the upcoming year.

9. Receive Information on Public Safety Power Shutdowns and Impact to EBRCSA

Director McCarthy advised there were no impacts to the System during two recent PSPS.

10. Receive an Update on the City of Antioch

Director McCarthy advised that the City of Antioch needed to trench 875 ft for the secondary Antioch site. The quoted price was over the threshold set by Antioch so it would now need to go out for a full RFP. It could take three to four months to get the RFP process completed.

11. Receive an Update on the City Vallejo

Director McCarthy stated Vallejo was going well. They had almost all the radios switched over to the System. They had been on the System for a day but then went back to their old radio system as their Code 33 button did not work and they could not talk through their consoles. They are almost done getting their consoles set up. They were also adding to a tower and other equipment so they will have better coverage when they move over.

12. Receive an Update on TDMA – Time Division Multiple Access

Director McCarthy stated October 30, 2020 was the scheduled cut over date. In October, there was approximately about 80% completed, now that number was about 93% completed. The Authority would start converting cells in early December.

13. Receive information regarding California Department of Justice Bulletin regarding Encryption

Director McCarthy stated the California Department of Justice (DOJ) had a bulletin stating that agencies had to encrypt any law enforcement channels that run personal, confidential information, wants, warrants, driver's license checks. He had spoken to the Alameda County Chiefs and Sheriff Ahern, and was working with P. Mulligan to speak to the Contra Costa County law enforcement agencies, regarding encryption. It could cost \$450 - \$500 per radio when you add in the encryption software. It would encompass touching over 14,000 radios. California Highway Patrol had come up with a way to do this without encrypting, and received approval to not encrypt their radios. All agencies need to write a response letter to DOJ by December 31, 2020 with their plan on achieving encryption. Director McCarthy was working on a letter for Chiefs to attach to their response letters to the DOJ that would explain what it would take for the Authority to get this done. There needed to be a standardized encryption that everyone was on to maintain interoperability amongst the agencies. It would also require encrypting consoles. One question that needed to be discussed was will Authority need to pay for encrypting consoles as they now own all agencies' consoles.

Bm. Mulligan asked if each agency will need to pay for its encryption. It would be a significant amount for each agency.

Director McCarthy stated yes. They would also need to build a new code plug for each department in order to put that into their radio. Only people who have also encrypted can speak to each other. There are approximately 14,000 law enforcement radios, with a total of 22,000 System users. Firefighters does not broadcast HIPPA information.

14. Agenda Items for Next Meeting:

None.

15. Adjournment: With no further business coming before the Operations Committee, the meeting was adjourned at 10:30 a.m.



Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

AGENDA ITEM NO. 4.

AGENDA STATEMENT OPERATIONS COMMITTEE MEETING DATE: February 19, 2021

TO: Operations Committee

East Bay Regional Communications System Authority (EBRCSA)

FROM: Thomas G. McCarthy, Executive Director

East Bay Regional Communications System Authority

SUBJECT: Budget Adjustment FY 20/21

RECOMMENDATIONS:

Receive a report from the Executive Director concerning the and FY 20/21 Budget Adjustments. It is recommended that the Committee recommend to the Board of Directors the budget for FY 20/21 based on the information discussed in this item.

SUMMARY/DISCUSSION:

Craig Boyer, Alameda County Auditor's Office, has prepared the FY 20/21 Budget Adjustment that the Operations Committee will have information regarding the changes to the current Fiscal Year Budget as recommended:

Adjust the fiscal year 2020-2021 budget for the following:

- 1. Increase administration budget due to approved increase in the Executive Director compensation rate effective January 1, 2021.
- 2. Increase maintenance budget due to unplanned generator costs and higher than expected HVAC and microwave maintenance costs.
- 3. Increase utilities budget to account for utilities provided at various Alameda County radio sites.
- 4. Decrease capital budget due to MPLS upgrade and refinancing of TDMA upgrade.

Below is a summary of the proposed budget adjustments for FY 20/21:

Alameda County Office of Homeland Security and Emergency Services 4985 Broder Blvd, Dublin CA 94568 ● (925) 803-7802 ● www.ebrcsa.org

REVENUES

Operating Payments	72,000
Total	\$ 72,000
EXPENSES	
Administration	19,000
Maintenance	4,000
Utilities	50,000
TDMA Upgrade	(1,000)
Total	\$ 72,000

Operating payment revenues were budgeted in excess of appropriations for expenses for the fiscal year. After the current budget amendment, budgeted revenues in excess of budgeted expenses total \$700,000. Actual revenues in excess of expenditures will be applied to reserves in accordance with the Authority's reserve policies.

RECOMMENDED ACTION:

It is recommended that the Committee discuss and reach a consensus for the Adjustment to the Fiscal Year Budget for FY 20/21 for presentation to the Board of Directors.

Attachment "A": Budget Adjustment FY 20/21



East Bay Regional Communications System Authority



Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

AGENDA ITEM 4A.

STAFF REPORT FINANCE COMMITTEE MEETING FEBRUARY 19, 2021

SUMMARY:

Adjust the fiscal year 2020-2021 budget for the following:

- 1. Increase administration budget due to approved increase in the Executive Director compensation rate effective January 1, 2021.
- 2. Increase maintenance budget due to unplanned generator costs and higher than expected HVAC and microwave maintenance costs.
- 3. Increase utilities budget to account for utilities provided at various Alameda County radio sites.
- 4. Decrease capital budget due to MPLS upgrade and refinancing of TDMA upgrade.

Below is a summary of the proposed budget adjustments for FY2020-21:

REVENUES

Operating Payments	72,000
Total	\$ 72,000
EXPENSES	
Administration	19,000
Maintenance	4,000
Utilities	50,000
TDMA Upgrade	 (1,000)
Total	\$ 72,000

Operating payment revenues were budgeted in excess of appropriations for expenses for the fiscal year. After the current budget amendment, budgeted revenues in excess of budgeted expenses total \$700,000. Actual revenues in excess of expenditures will be applied to reserves in accordance with the Authority's reserve policies.

RECOMMENDED ACTION:

Staff recommends that the Board approve the budget adjustment for fiscal year 2020-21.

Alameda County Office of Homeland Security and Emergency Services 4985 Broder Blvd, Dublin CA 94568 • (925) 803-7802 • www.ebrcsa.org







Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton,
Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton,
Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules
Fire District, San Ramon Valley Fire District, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

BUDGET FISCAL YEAR 2020-21

Revenues

Net Income

Operating payments	\$ 6,450,000
Service payments	1,232,000
Interest	188,000
Total revenues	7,870,000
<u>Expenses</u>	
Administration	433,000
Audit fees	20,000
Insurance	40,000
Lease	70,000
Legal	20,000
Licenses and permits	30,000
Membership fees	10,000
Maintenance	3,605,000
Security	12,000
Utilities	210,000
Website hosting	4,000
Total operating expenses	4,454,000
Capital	 2,066,000
Debt Service	650,000
Total expenses	7,170,000

700.000

EAST BAY REGIONAL COMMUNICATIONS SYSTEM EXPENDITURE DETAIL FISCAL YEAR 2020-2021

OPERATING EXPENSES		Y20-21 pproved	FY20-21 Amendment #1		FY20-21 Amended	
Administration		pproved	71110			<u> </u>
Executive director	\$	225,000	\$	19,000	\$	244,000
Administrative assistant	Ψ	40,000	*	-	Ψ.	40,000
Planning		134,000		_		134,000
Travel		5,000		_		5,000
Miscellaneous		10,000		_		10,000
Audit fees		20,000		_		20,000
Insurance		40,000		-		40,000
Lease		70,000		-		70,000
Legal		20,000		-		20,000
Licenses and permits		30,000		-		30,000
Membership fees		10,000		-		10,000
Maintenance				-		-
Service agreement		1,080,000		-		1,080,000
Software maintenance (SUA II)		974,000		-		974,000
Network administration		262,000		-		262,000
HVAC maintenance		20,000		1,000		21,000
Generator maintenance		40,000		2,000		42,000
ALCO general maintenance		600,000		-		600,000
COCO general maintenance		230,000		-		230,000
CSI telecommunications		200,000		-		200,000
Microwave maintenance		180,000		1,000		181,000
Miscellaneous		15,000		-		15,000
Security		12,000		-		12,000
Utilities		160,000		50,000		210,000
Website hosting		4,000				4,000
Total expenses		4,381,000		73,000		4,454,000
CAPITAL EXPENDITURES						
TDMA Upgrade		1,665,000		(1,000)		1,664,000
DC Power Upgrade		250,000		-		250,000
Dispatch Consoles		152,000		-		152,000
Total expenditures		2,067,000		(1,000)		2,066,000
DEBT SERVICE						
Principal		492,000		-		492,000
Interest		158,000		-		158,000
Total expenses	\$	650,000	\$	72,000	\$	650,000

^{1.} Motorola service agreement increased due to a new 4 year contract

^{2.} Network administration contract increased

^{3.} TDMA Upgrade Expense is the annual payment for the Change Order approved by the Board of Directors

^{4.} DC Power Updgrade Expense is an annual amount to replace the batteries in various locations

PROJECTED CASH RESERVE BALANCES FISCAL YEAR 2020-2021

		FY19-20	FY19-20		FY20-21
Operating Reserve	F	inal Budget	Actual		Budget
Beginning Balance	\$	1,733,162	\$	1,733,162	\$ 2,012,311
Operating Payments		6,400,000		6,097,330	6,450,000
Initial Payments		-		4,400	-
Interest		80,000		191,428	188,000
Operating Expenses		(4,384,000)		(4,024,621)	(4,454,000)
Transfer to Capital Reserve		(1,637,162)		(1,989,389)	(1,969,311)
Ending Balance		2,192,000		2,012,311	2,227,000
Debt Service Reserve					
Beginning Balance		1,000,000		1,000,000	1,000,000
Service Payments		1,190,000		1,123,988	1,232,000
Debt Service		(650,000)		(648,024)	(650,000)
Transfer to Capital Reserve		(540,000)		(475,964)	(582,000)
Ending Balance		1,000,000		1,000,000	1,000,000
Capital Reserve					
Beginning Balance		7,943,576		7,943,576	8,588,225
Grants		167,000		142,778	, , -
Transfer In		2,177,162		2,465,353	2,551,311
Capital		(2,067,000)		(1,963,482)	(2,066,000)
Ending Balance		8,220,738		8,588,225	9,073,535
Total Reserve Balance	\$	11,412,738	\$	11,600,535	\$ 12,300,535

^{1.} Operating Reserve Balance is equal to 50% of the next fiscal years Operating Budget

^{2.} Debt Reserve Balance is set to equal \$1,000,000 every fiscal year

^{3.} Capital Reserve Balance is the projected remaining cash after the Operating and Debt Reserve requirments have been met

EAST BAY REGIONAL COMMUNICATIONS SYSTEM AUTHORITY 10 YEAR CASH FLOW PROJECTION

	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Operating Reserve	Actual	Budget	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Balance - beginning	\$ 1,733,162	\$ 2,012,311	\$ 2,227,000	\$ 2,198,060	\$ 2,259,223	\$ 2,318,244	\$ 2,387,791	\$ 2,467,925	\$ 2,533,209	\$ 2,609,205	\$ 2,695,982
Receipts from members	6,293,158	6,638,000	6,655,400	6,655,400	6,655,400	6,655,400	6,655,400	6,655,400	6,655,400	6,655,400	6,655,400
Payments to suppliers	(4,024,621)	(4,454,000)	(4,396,120)	(4,518,445)	(4,636,488)	(4,775,582)	(4,935,850)	(5,066,417)	(5,218,410)	(5,391,963)	(5,536,212)
Transfer to Capital Reserve	(1,989,389)	(1,969,311)	(2,288,220)	(2,075,793)	(1,959,891)	(1,810,271)	(1,639,416)	(1,523,700)	(1,360,994)	(1,176,661)	(1,047,064)
Balance - ending	2,012,311	2,227,000	2,198,060	2,259,223	2,318,244	2,387,791	2,467,925	2,533,209	2,609,205	2,695,982	2,768,106
Debt Service Reserve											
Balance - beginning	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	-	-	-
Service payment	1,123,988	1,232,000	1,222,248	1,222,248	1,222,248	1,222,248	1,222,248	1,222,248	-	-	-
Principal	(473,000)	(492,000)	(512,000)	(532,000)	(553,000)	(576,000)	(600,000)	(623,000)	-	-	-
Bond interest	(175,024)	(158,000)	(138,000)	(118,000)	(97,000)	(74,000)	(50,000)	(27,000)	-	-	-
Transfer to Capital Reserve	(475,964)	(582,000)	(572,248)	(572,248)	(572,248)	(572,248)	(572,248)	(1,572,248)	-	-	-
Balance - ending	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	-	-	-	-
Capital Reserve	7.042.576	0.500.335	0.072.525	40.020.072	40.755.004	44 275 002	44.044.504	42.442.245	42 226 422	12 774 006	12 700 757
Balance - beginning Grants	7,943,576 142,778	8,588,225	9,073,535	10,020,973	10,755,984	11,375,092	11,844,581	12,143,215	13,326,133	12,774,096	13,700,757
Transfer In	2,465,353	2,551,311	2,860,468	2,648,041	2,532,139	2,382,519	2,211,664	3,095,948	1,360,994	1,176,661	1,047,064
Capital	(1,963,482)	(2,066,000)	(1,913,030)	(1,913,030)	(1,913,030)	(1,913,030)	(1,913,030)	(1,913,030)	(1,913,030)	(250,000)	(250,000)
Balance - ending	8,588,225	9,073,535	10,020,973	10,755,984	11,375,092	11,844,581	12,143,215	13,326,133	12,774,096	13,700,757	14,497,820
Suluite cilang	0,500,225	3,073,333	10,020,373	10,755,564	11,575,052	11,044,301	12,143,213	13,320,133	12,774,030	13,700,737	14,437,020
TOTAL RESERVE BALANCE	\$ 11,600,535	\$ 12,300,535	\$ 13,219,033	\$ 14,015,206	\$ 14,693,336	\$ 15,232,372	\$ 15,611,140	\$ 15,859,341	\$ 15,383,301	\$ 16,396,738	\$ 17,265,926
CURRENTA BY COURDING FOR	DAVAGNITC TO CI	IDDI IEDC									
SUPPLEMENTARY SCHEDULE FOR Administration	\$ (240,143)		\$ (307,970)	\$ (317,209)	\$ (326,725)	\$ (336,527)	\$ (346,623)	\$ (357,022)	\$ (367,733)	\$ (378,765)	\$ (390,128)
Audit fees	(10,657)	(20,000)	(20,600)	(21,218)	(21,855)	(22,511)	(23,186)	(23,882)	(24,598)	(25,336)	(26,096)
Insurance	(25,902)	(40,000)	(41,200)	(42,436)	(43,709)	(45,020)	(46,371)	(47,762)	(49,195)	(50,671)	(52,191)
Lease	(68,364)	(70,000)	(72,100)	(74,263)	(76,491)	(78,786)	(81,150)	(83,585)	(86,093)	(88,676)	(91,336)
Legal	(9,661)	(20,000)	(20,600)	(21,218)	(21,855)	(22,511)	(23,186)	(23,882)	(24,598)	(25,336)	(26,096)
Licenses and permits	(3,264)	(30,000)	(30,900)	(31,827)	(32,782)	(33,765)	(34,778)	(35,821)	(36,896)	(38,003)	(39,143)
Membership fees	(8,446)	(10,000)	(10,300)	(10,609)	(10,927)	(11,255)	(11,593)	(11,941)	(12,299)	(12,668)	(13,048)
Maintenance	,	. , ,	, , ,	. , ,		, , ,	, , ,	. , ,	. , ,	, , ,	, , ,
Customer svc. agmt.	(1,064,291)	(1,080,000)	(1,088,000)	(1,099,000)	(1,131,970)	(1,165,929)	(1,200,907)	(1,236,934)	(1,274,042)	(1,312,263)	(1,351,631)
SUA II	(957,763)	(974,000)	(980,000)	(1,009,400)	(1,039,682)	(1,070,872)	(1,102,998)	(1,136,088)	(1,170,171)	(1,205,276)	(1,241,434)
System management	(303,877)	(262,000)	(264,000)	(267,000)	(275,010)	(283,260)	(291,758)	(300,511)	(309,526)	(318,812)	(328,376)
HVAC	(22,914)	(21,000)	(21,630)	(22,279)	(22,947)	(23,635)	(24,344)	(25,074)	(25,826)	(26,601)	(27,399)
Generators	(46,338)	(42,000)	(43,260)	(61,558)	(45,895)	(47,272)	(65,690)	(50,151)	(51,656)	(70,206)	(54,802)
ALCO maintenance	(600,000)	(600,000)	(618,000)	(636,540)	(655,636)	(675,305)	(695,564)	(716,431)	(737,924)	(760,062)	(782,864)
COCO maintenance	(193,180)	(230,000)	(236,900)	(244,007)	(251,327)	(258,867)	(266,633)	(274,632)	(282,871)	(291,357)	(300,098)
00111	(79,174)	(200,000)	(206,000)	(212,180)	(218,545)	(225,101)	(231,854)	(238,810)	(245,974)	(253,353)	(260,954)
CSI telecommunications		-				(202 710)	(209,830)	(216,125)	(222,609)	(229,287)	(236,166)
CSI telecommunications Microwave maintenance	(195,089)	(181,000)	(186,430)	(192,023)	(197,784)	(203,718)	(203,030)	(,,	(222,000)	(223)207)	(230,100)
	(195,089) (9,444)	(181,000) (15,000)	(186,430) (15,450)	(192,023) (15,914)	(197,784) (16,391)	(16,883)	(17,389)	(17,911)	(18,448)	(19,001)	(19,571)
Microwave maintenance	(9,444)	(15,000)	(15,450)	(15,914)	(16,391)	(16,883)	(17,389)	(17,911)	(18,448)	(19,001)	(19,571)
Microwave maintenance Miscellaneous	(9,444) (10,697)	(15,000) (12,000)		(15,914) (12,731)	(16,391) (13,113)			(17,911) (14,328)	(18,448) (14,758)		(19,571) (15,657)
Microwave maintenance Miscellaneous Security	(9,444)	(15,000)	(15,450) (12,360)	(15,914)	(16,391)	(16,883) (13,506)	(17,389) (13,911)	(17,911)	(18,448) (14,758)	(19,001) (15,201)	(19,571)

Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

AGENDA ITEM NO. 5.

AGENDA STATEMENT OPERATIONS COMMITTEE MEETING DATE: February 19, 2021

TO: Operations Committee

East Bay Regional Communications System Authority (EBRCSA)

FROM: Tom McCarthy, Executive Director

East Bay Regional Communications System Authority

SUBJECT: Request Direction regarding Development of San Ramon Site at Wiedemann

Ranch

RECOMMENDATIONS:

Request Committee discuss and make a recommendation to the Executive Director regarding East Bay Regional Communications System Authority (EBRCSA) involvement in development of San Ramon Site at Wiedemann Ranch in Contra Costa County, above the City of San Ramon.

SUMMARY/DISCUSSION:

The City of San Ramon has a new development being built by Lennar Homes named "The Preserve". The development is in the west part of the City and is shadowed by the foothills dividing the East and West of Alameda and Contra Costa County. CSI Telecommunications and the Contra Costa County Department of Information Technology performed Land Mobile Radio (LMR) radio testing in "The Preserve" and determined that due to shadowing from the surrounding foothills Public Safety could not communicate in parts of "The Preserve" and additional LMR radio infrastructure is necessary. In addition, the San Ramon Valley Fire District has an ordinance #206 which states:

Prior to vertical building construction, the Applicant shall provide telecommunications radio infrastructure to the satisfaction of the San Ramon Police Department and San Ramon Valley Fire Protection District to meet the prescribed design standards of the East Bay Regional Communication System Joint Powers Authority (EBRCSA JPA). This may include but is not

limited to, tower, vault, HVAC, Antennas, microwave, cabling, power, transmit and receive modules, emergency power (battery and generator), access and other resources to provide and effective emergency radio communications system, that can be sustained by the EBRCSA JPA.

CSI was brought in to provide further testing by the San Ramon Valley Fire Department and three sites were studied to determine what options were available to improve the LMR coverage in "The Preserve". The three locations which CSI reviewed are Rock Ridge in San Ramon, located on the hilltop south/east of "The Preserve", the Wiedemann Ranch East of "The Preserve", and the East Bay Municipal Utility District (EBMUD) Water Tank in the boundaries of "The Preserve".

CSI performed site visits to the different sites and mapped the radio coverage for each location. Rocky Ridge was determined not a suitable site due to the shadow of the hillside interfered with coverage in "The Preserve". The EBMUD water tank would provide coverage, however, the height of the tower could be of concern to the residents in "The Preserve". CSI recommended that the location on Wiedemann Ranch would provide the necessary LMR coverage to "The Preserve". In addition, the Wiedemann site has PG&E and a shelter for the new EBRCSA LMR equipment.

A team has been assembled consisting of representation from San Ramon Valley Fire, Lennar Homes, Motorola, Contra Costa County Department of Information Technology, and EBRCSA Executive Director. The team is currently investigating the feasibility of the Wiedemann Site, cost to build, and ongoing costs. The site will need upgrades to the current shelter such as dividing off space in the shelter for equipment, a generator, HVAC, generator, division of PG&E to a separate meter head, interior electrical upgrade, batteries, and LMR equipment. A tower will also be required and the appropriate foundation for the tower.

Motorola is assisting on what site work and equipment will be required. Lennar Homes will also be discussing what elements they could perform with their existing contractors who could possibly provide Geological and Civil Engineering services to reduce their costs.

FISCAL IMPACT:

The Fiscal Impact is unknown. The contract for the build and optimization of the site would be between Motorola and the San Ramon Valley Fire District, Motorola does not provide Public Safety LMR Contract Services to developers. Lennar and the San Ramon Valley Fire Protection District will write a contract between Lennar Homes and the San Ramon Valley Fire Protection District concerning costs. Further discussions will be held regarding the ongoing costs for the lease of the land at Wiedemann Ranch. The goal is to transfer the site and all equipment to EBRCSA to maintain and monitor the Wiedemann site.

RECOMMENDED ACTION:

It is recommended that the Committee provide its recommendation to the Board of Directors as to how the Executive Director should proceed at this time. Updates with additional information will be provided to the Committee's and Board of Directors as the project advances.

Attachment "A": San Ramon Valley Fire District Ordinance

- 200. The design must conform to the City of San Ramon Security Ordinance, No. 227, Section C2-1 through C2-20 for the Building & Safety Services Division.
- 201. A Certificate of Occupancy will be issued upon final inspection and approval by the San Ramon Valley Fire Protection District, Planning Services Division, Engineering Services Department and Building & Safety Services Division.
- 202. Work hours for this Project shall be as specified in City Ordinance No. 73 for emission or creation of noise beyond certain levels, or as modified herein (see also Condition No. 7).

Police Services Department

203. Prior to building permit issuance, the Applicant shall submit to the Building Official and the Crime Prevention Specialist a detailed lighting plan for review and approval. This plan shall indicate the location, design, and/or construction details and illumination levels of these fixtures. Light sources shall be required at all exterior doors to each home, and in all alleys, walkways, and private roads. Lighting for alleys should be mounted on each home at the rear. The minimum surface illumination recommendations provided by the Illuminating Engineering Society of North America are 5 foot-candles for pedestrian walkways and 5-8 foot-candles for building entrances and exits. Enough lighting shall be provided that an individual may be identified from a distance of 25 feet away.

Transportation Services Division

204. Traffic Impact Fees including the Citywide, Southern Contra Costa JEPA, Southern Contra Costa Regional, and Tri-Valley Transportation Development fees shall be paid per City Council Resolution No. 13-034 which was in effect at the time the Vesting Tentative Map application was deemed complete, November 4, 2013.

San Ramon Valley Fire Protection District

- 205. NOTE ON FIELD PLAN: Fire apparatus roadways (public or private streets or roads used for vehicle access) shall be installed and fire hydrants in service prior to commencement of framing: PRIOR TO COMMENCEMENT OF FRAMING, CONTACT THE SAN RAMON VALLEY FIRE PROTECTION DISTRICT TO SCHEDULE AN INSPECTION OF ROADWAYS AND FIRE HYDRANTS.
- 206. Prior to vertical building construction, the Applicant shall provide telecommunications radio infrastructure to the satisfaction of the San Ramon Police Department and San Ramon Valley Fire Protection District to meet the prescribed design standards of the East Bay Regional Communication System Joint Powers Authority (EBRCS JPA). This may include but is not limited to, tower, vault, HVAC, antennas, microwave, cabling, power, transmit and receive modules, emergency power (battery and generator), access and other resources to provide an effective emergency radio communications system, that can be sustained by the EBRCS JPA.

Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

AGENDA ITEM NO. 6.

AGENDA STATEMENT OPERATIONS COMMITTEE MEETING DATE: February 19, 2021

TO: Operations Committee

East Bay Regional Communications System Authority (EBRCSA)

FROM: Tom McCarthy, Executive Director

East Bay Regional Communications System Authority

SUBJECT: Request Direction regarding California Department of Justice Bulletin 20-09,

Criminal Justice Information Services, Encryption

RECOMMENDATIONS:

Request Committee discuss and make a recommendation to the Executive Director regarding East Bay Regional Communications System Authority (EBRCSA) upgrade to Dispatch Consoles.

SUMMARY/DISCUSSION:

The California Department of Justice provided Law Enforcement in the State of California with a new bulletin requiring Law Enforcement inquiries to Criminal Justice Information (CJIS) and Personally Identifiable Information (PII) meet the following new standard:

Only authorized law enforcement, criminal justice personnel or their lawfully authorized designees may use a CLETS (California Law Enforcement Telecommunications System) or have access to information derived from CLETS. Any information from the CLETS is confidential and for official use only. Access is defined as the ability to hear or view any information provided through the CLETS.

The change in the bulletin added the word "hear" and the need to protect confidential information, CJI and PII, that can be broadcast. The only way to protect the information is via encrypted radio channels. Currently the information is broadcast from the field to dispatch

centers, on unencrypted channels, that the public can monitor via various scanner applications on smart phones. CA DOJ provided the bulletin to Law Enforcement Leaders on October 12, 2020. The Executive Director met with the Sheriff's and Chiefs of Police in Alameda and Contra Costa Counties to discuss the bulletin. CA DOJ wanted an estimate as to how long it would take to encrypt their systems by December 31, 2020. I wrote a letter each Sheriff and Chief could adapt for their agency response based on what it would take to encrypt all EBRCSA Law Enforcement Agencies.

The letter informed CA DOJ that encryption would take approximately thirty months (30) as the Counties and Cities are on a two-year budget cycle. In addition to update 14,000 radios based on previous update for TDMA, could take two years to complete. To date DOJ has not responded to the letters submitted by EBRCSA members.

ERCSA has two agencies that currently use encryption on their radios, however, they use a 40-bit encryption and CA DOJ is requiring a minimum 128-bit encryption. The Federal Standard is 256-bit encryption and that is what EBRCSA is recommending because 256-bit encryption is universal. All radio manufacturers provide compatible 256-bit encryption keys which allow interoperability.

The cost per radio for the Encryption, Over-the-Air-Rekeying, and Multi Key is approximately \$743 per radio. All three of these are necessary for encryption on the radio. In addition, the respective radio shop for each county will have to touch each radio to upload the encryption keys which takes about 30 minutes per radio. Several radios can be done at one time; however, I do not know what the radio shop will charge for the service.

The Executive Director is seeking direction from the committee concerning the encryption of the consoles owned by EBRCSA. In order to have point-to-point encryption between the field and the dispatch centers EBRCSA must encrypt their MCC7500 consoles. EBRCSA has approximately 200 consoles and an inventory must be done to establish how many of the consoles will need encryption, some already have the necessary hardware for encryption. The consoles used by Fire Departments and Emergency Medical Services will not need encryption.

The inventory is necessary in order to receive an accurate quote from Motorola to install encryption in the EBRCSA Consoles. EBRCSA will also need to include "Key Management Facility" (KMF) to update the encryption if or when we update an encryption key. The KMF is used to change/update the encryption key into the radio without the technicians needing to touch each radio. The initial encryption key must be loaded manually into each radio. In addition, each console will require "Over-The-Ethernet Key Management" (OTEK) which provides the ability to distribute encryption keys to the MCC 7500 Dispatch Consoles owned by EBRCSA. Motorola has provided two options for EBRCSA concerning the encryption of the MCC7500 dispatch consoles. The second option is the desired option; however, the pricing needs to be refined after the inventory is completed. Option 1 will require that if an encryption key needs to be changed, EBRCSA would have to touch each radio and that is not an option due to the associated cost and time to perform the update. Option 2 allows EBRCSA to send the update over the air, and when the radio is turned on it is updated.

CA DOJ has not provided a date when this must be completed, and EBRCSA is working to ensure we can respond with an accurate timeline based on the steps EBRCSA must take to complete the transition. It is unknown at this time how long it will take to receive the necessary software, licenses, and associated equipment to complete the project. The Executive Director is seeking recommendations from the Committees concerning Encryption and discussion of the next steps.

FISCAL IMPACT:

The Fiscal Impact will be determined based on the recommendation of the Committees. EBRCSA will work to develop an accurate number of consoles which will be encrypted and proceed with a request to Motorola for a Budgetary Estimate. The cost will be then utilized to develop a budget change for the project and presentation to the Committees and Board of Directors for approval.

RECOMMENDED ACTION:

It is recommended that the Committee provide its recommendation to the Board of Directors as to how the Executive Director should proceed at this time. Updates with additional information will be provided to the Committee's and Board of Directors as the project advances.

Attachment "A" – CA DOJ Encryption Bulletin Attachment "B": Initial Budgetary Estimate from Motorola Solutions, Inc.

California Department of Justice CALIFORNIA JUSTICE INFORMATION SERVICES DIVISION Joe Dominic, Chief



INFORMATION BULLETIN

Subject:

Confidentiality of Information from the California Law Enforcement Telecommunications System (CLETS) No. 20-09-CJIS

Date:

10-12-2020

Contact for information:

CLETS Administration Section CAS@doj.ca.gov (916) 210-4240

TO: ALL CLETS SUBSCRIBING AGENCIES

Law enforcement and criminal justice agencies authorized by the California Department of Justice (CA DOJ) to access the CLETS must adhere to the requirements detailed in the CLETS Policies, Practices and Procedures (PPP) and in the Federal Bureau of Investigation (FBI) Criminal Justice Information Services (CJIS) Security Policy to ensure the confidentiality and integrity of the data therein. More specifically, and as detailed further below, access to certain Criminal Justice Information (CJI) and Personally Identifiable Information (PII) must be limited to authorized personnel; and the transmission of such information must be encrypted. Although generally applicable, the information in this bulletin is particularly relevant to the radio transmission of protected data.

Allowable "access" to CJI and PII, derived from CLETS, is described in CLETS PPP section 1.6.4:

Only authorized law enforcement, criminal justice personnel or their lawfully authorized designees may use a CLETS terminal or have access to information derived from CLETS. Any information from the CLETS is confidential and for official use only. Access is defined as the ability to hear or view any information provided through the CLETS.

The FBI and the CA DOJ establish policies and procedures related to the usage and protection of CJI that govern the usage of the CLETS. The policies define CJI, classify them as restricted or unrestricted, and limit the amount and types of information that can be broadcast over unencrypted radio channels in order to protect sensitive CJI and PII.

Generally, PII is information that can be used to distinguish or trace an individual's identity, such as an individual's first name, or first initial, and last name in combination with any one or more specific data elements (see FBI CJIS Security Policy section 4.3.). Data elements include Social Security number, passport number, military identification (ID) number and other unique ID numbers issued on a government document. The most common data elements encountered during field operations include a driver license number or ID number.

The transmission of sensitive CJI and PII must be encrypted pursuant to the FBI CJIS Security Policy sections 5.10 and 5.13; and access may only be provided to authorized individuals as defined under the CLETS PPP and the FBI CJIS Security Policy.

¹ For reference, please refer to the CLETS PPP at https://oag.ca.gov/sites/default/files/clets-ppp%2012-2019.pdf and the FBI CJIS Security Policy at https://www.fbi.gov/file-repository/cjis_security_policy_v5-9_20200601.pdf/view. See also Government Code section 15150 et seq. and California Code of Regulations, title 11, section 703.

Information Bulletin Confidentiality of CLETS Information Page 2

Compliance with these requirements can be achieved using any of the following:

- Encryption of radio traffic pursuant to FBI CJIS Security Policy sections 5.10.1.2, 5.10.1.2.1, and 5.13.1. This will provide the ability to securely broadcast all CJI (both restricted and unrestricted information) and all combinations of PII.
- Establish policy to restrict dissemination of specific information that would provide for the protection of restricted CJI database information and combinations of name and other data elements that meet the definition of PII. This will provide for the protection of CJI and PII while allowing for radio traffic with the information necessary to provide public safety.

If your agency is not currently in compliance with the requirements outlined herein, please submit an implementation plan to the CA DOJ, CLETS Administration Section, no later than <u>December 31</u>, <u>2020</u>. The plan must be on agency letterhead and signed by the Agency Head (e.g., Sheriff, Chief); include a detailed description of how radio communications will be brought into compliance (e.g., encryption), or how the risks will be mitigated through policy if unable to implement the required technology; and must include the projected timeline as to when the issue will be resolved.

For questions about this bulletin, contact the CLETS Administration Section at <u>CAS@doi.ca.gov</u> or (916) 210-4240.

Sincerely,

JOE DOMINIC, Chief California Justice Information Services Division

For XAVIER BECERRA Attorney General



EAST BAY REGIONAL COMMUNICATIONS SYSTEM AUTHORITY

AES ENCRYPTION - BUDGETARY ESTIMATES

NOVEMBER 23. 2020



The design, technical, pricing, and other information ("Information") furnished with this budgetary submission is proprietary and/or trade secret information of Motorola Solutions, Inc. ("Motorola Solutions") and is submitted with the restriction that it is to be used for evaluation purposes only. To the fullest extent allowed by applicable law, the Information is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the Information without the express written permission of Motorola Solutions. The Information provided in this budgetary submission is provided for evaluation purposes only and does not constitute a binding offer to sell or license any Motorola Solutions product or services. Motorola Solutions is making no representation, warranties, or commitments with respect to pricing, products, payment terms, credit, or terms and conditions. A firm offer would require more information and further detailed analysis of the requirements.

MOTOROLA, MOTO, MOTOROLA SOLUTIONS, and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. © 2020 Motorola Solutions, Inc. All rights reserved.

Motorola Solutions, Inc. 1303 E. Algonquin Rd. Schaumburg, IL 60196

Tel. + 1 847 576 5000

Fax + 1 847 538 6020



TABLE OF CONTENTS

Contents

Section 1	1-2
System Description	1-2
1.1 Introduction	
Secure Communications at the Console	1-4
OPTION 1	1-4
KVL 5000 Key Variable Loader	1-4
OPTION 2	1-5
Over-the-Ethernet Key Management (OTEK)	1-5
Over-the-Air Rekeying	1-6
Key Management Facility (KMF)	1-6
KMF Web-Based Thin Client	1-6
Design and Implementation Assumptions	1-7
Section 2	2-9
Equipment List	2-9
2.1.1 Option 1	2-9
2.1.2 Option 2	2-10
Section 3	3-11
Statement of Work	3-11
3.1 Motorola Responsibilities	3-11
3.2 East Bay Regional Communications System Authority Responsibilities	3-11
Section 4	4-12
Pricing Summary	4-12
4.1 LIST Pricing for OPTION 1	
4.2 LIST Pricing for OPTION 2	4-12
4.3 ESTIMATED Pricing for Support and Maintenance Services (OPTION 2)	4-13

SYSTEM DESCRIPTION

Budgetary Estimate Reference #:

PS-000109742

November 23, 2020

1.1 INTRODUCTION

To satisfy the requirements of California DOJ Information Bulletin of October 12, 2020 regarding encrypting radio transmissions of protected data Motorola Solutions, Inc. ("Motorola") provides these budgetary estimates to East Bay Regional Communications System Authority (EBRCSA). This proposal has two alternative approaches. First alternative is the system enablement of AES encryption and encryption for the existing ASTRO 25 MCC 7500 consoles and Archiving Interface Servers The second alternative includes the same as the first, except for the inclusion of new KVL5000 devices, plus enables system wide Over the Air Rekeying ("OTAR") and use of multiple encryption keys.

Both alternatives prevent radio transmissions being monitored by unauthorized parties with end-toend AES encryption with current Project 25 algorithms and are fully compliant with all Federal Information Processing Standards (FIPS).

The MCC 7500 dispatch console enables end-to-end encryption from the operator position to the ASTRO 25 network, so that at no point will EBRCSA's communications be undermined by unencrypted transmissions. Each dispatch operator will be able to fully participate in secure communications while being confident that sensitive, vital information will not be heard by unauthorized individuals. A diagram is shown below in Figure 1-1.

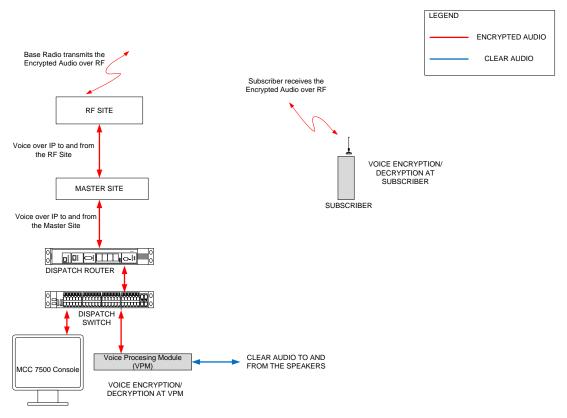


Figure 1-1: Encrypted Voice Path between console to subscriber unit

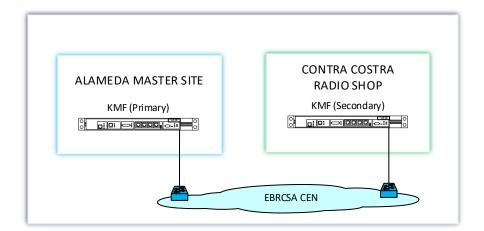
Two options are proposed to EBRCSA.

Option 1:

- Upgrade of 180 MCC 7500 consoles and Archiving Interface Servers (AIS) to support AES Encryption
- Upgrade of 165 MCC 7500 consoles and Archiving Interface Servers (AIS) with Secure Operation Licenses
- Upgrade of 3 existing KVL 4000 Key Variable Loader with AES Encryption
- Reuse of EBRCSA/Radio Shops 3 existing KVL 5000 Key Variable Loader with AES and ADP Encryption
- Provide 10 new KVL 5000 Key Variable Loader with AES and ADP Encryption

Option 2:

- Upgrade of 180 MCC 7500 consoles and Archiving Interface Servers (AIS) to support AES Encryption
- Upgrade of 165 MCC 7500 consoles and Archiving Interface Servers (AIS) with Secure Operation Licenses
- Upgrade of 3 existing KVL 4000 Key Variable Loader with AES Encryption
- Reuse of EBRCSA/Radio Shops 3 existing KVL 5000 Key Variable Loader with AES and ADP Encryption
- Upgrade of 210 MCC 7500 consoles and Archiving Interface Servers (AIS) with Overthe-Ethernet Key Management feature (OTEK)
- Provide two (2) Key Management Facility (Primary and Secondary KMF) to enable fleet wide, coordinated changing of AES encryption keys (OTAR/OTEK)



SECURE COMMUNICATIONS AT THE CONSOLE

The console itself encrypts and decrypts radio voice messages. Thus, radio voice messages are encrypted end-to-end, from the field radio user to the dispatch console. The console operator can choose whether or not to encrypt their transmissions on a particular trunked resource. Console operators can interface with agencies that have different encryption configurations without any manual intervention or delay. The MCC 7500 Console can support up to 60 calls simultaneously, using up to four different algorithms and multiple encryption keys.

To help reduce potential errors when managing encrypted communications, the MCC 7500 interface provides alerts when the console mode does not match that of a received call, and when a patch or multi-select group is being set up between a mix of clear and secure channels.

Currently, the majority of the MCC 7500 dispatch consoles have no AES encryption except for approximately 30 MCC 7500 which currently have AES encryption.

OPTION 1

KVL 5000 KEY VARIABLE LOADER

The KVL 5000 allows programmers to generate, transport, and load encryption keys, securely and efficiently into secure communication products thereby enabling secure encrypted communications. Packaged in an easy to use one-handed design with an intuitive UI, the KVL 5000 integrates with Motorola's Key Management Facility (KMF) by provisioning radios to use Over-The-Air Rekeying (OTAR).

Designed to meet the requirements of two-way radio programmers, the purpose-built KVL 5000 delivers a quick start and snappy response for easy and efficient key loading without interrupting the rest of their workflow. The only keyloader that can protect keys with hardware protected keystore, the KVL 5000 provides users with the highest level of secure programming and information protection.



KVL 5000

KVL 5000 FEATURES

- FIPS 140-2 Level 2 keyloader
- HSM to protect keys
- Automatic key load
- Dead battery operation
- AES included



- Store and forward included
- Hardened out of the box

Ten (10) KVL 5000 with AES and ADP encryptions and all the appropriate cables are included in this budgetary for Option 1.

OPTION 2

OVER-THE-ETHERNET KEY MANAGEMENT (OTEK)

The Over-the-Ethernet Key Management feature (OTEK) provides the ability to distribute encryption keys to MCC 7500 Dispatch Consoles and AISs. OTEK supports end-to-end encryption by enabling remote, centralized key management and rekeying of dispatch consoles and the AIS over the network.

With OTEK, the KMF Server can send key management messages to update console/AIS keys, poll the console/AIS, and erase the console/AIS's keys. A console or AIS can also send key management messages to the KMF Server to acknowledge events.

KMF uses OTEK to remotely transfer key management messages to/from the MCC 7500 Console and AIS.

Before new keys can be distributed to the consoles or AIS using OTEK, the console or AIS secure card must have a Unique Key Encryption Key (UKEK), Message Number Period, Radio Set Identifier (RSI), and KMF RSI used to protect the OTEK messages (encryption keys) during distribution. These parameters are usually provided once using the KVL along with the IP address and appropriate port information of the KMF.

To employ the OTEK feature, new keys are assigned to the CKRs that are used by the MCC 7500 consoles and AIS servers and are established as an inactive keyset in the KMF database. (Note: The MCC 7500 console and the AIS server store the associations of talkgroups/multi-groups and CKRs.) The distribution of OTEK messages is initiated to all MCC 7500 consoles that are configured with the affected CKRs.

Upon receiving the OTEK messages, the console or AIS stores the new keys in the inactive keyset of their own key storage database. Voice communications using keys from the active keyset are not interrupted when the new keys in the inactive keyset are distributed. When successful distribution is complete, the KMF displays the OTEK update confirmation. Once the confirmation is displayed, a keyset changeover can be initiated to all consoles or AIS servers in a designated crypto group. When the keyset changeover is done, the KMF instructs the consoles and/or AIS servers to activate the previously inactive keyset and the new keys become currently active.

The MCC 7500 consoles of EBRCSA are VPM-based consoles (an MCC 7500 console interfacing with the secure-capable Voice Processor Module). The KMF equipment is installed on an external customer network. All key management traffic is passed through the network interface barrier to reach the MCC 7500 dispatch console and AIS.

This budgetary includes optional OTEK in all the MCC 7500 console positions and AIS servers located at EBRCSA's Dispatch Centers and the Master Site.

OVER-THE-AIR REKEYING

Over-the-Air Rekeying (OTAR) is enabled via Motorola's FIPS 140-2 certified Key Management Facility; this allows system operators to easily and securely change encryption keys on a regular basis, making the keys a moving

target, and thus more difficult for adversaries to crack.

If one of the radios is compromised, you have the ability to:

Remote inhibit – Securely prevent radios from gaining access to the network from a distance

EASILY AND SECURELY

CHANGE ENCRYPTION KEYS

TO ENSURE THE SAFETY OF YOUR RESPONDERS

- Remote enable Securely re-establish a radio's network access from a distance
- **Zero-ize** Securely remove a radio's key material
- **Change-over** Securely switch a radio's keyset to another keyset for use

OTAR, like POP25, sends updates to radios over the air, so users do not have to bring their radios in for manual service. This is especially important for encryption keys, because a manual change out could take days or weeks to accomplish.

Upgrading existing EBRCSA member agency subscriber units with AES encryption, OTAR or multikey is not included in this budgetary and can be quoted to member agencies directly.

KEY MANAGEMENT FACILITY (KMF)

The Key Management Facility (KMF), a centralized key manager, is the essential key management controller for Motorola's Project 25 Over-The-Air-Rekeying (OTAR) feature. Using the KMF, information can easily be created, inventoried, archived, and distributed to end-users. Combining centralized key management with our standards-based OTAR capability enables effective planning, implementation, and execution of robust security procedures.

KMF Web-Based Thin Client

The Key Management Facility (KMF) is a robust encryption key management solution that supports Motorola Solutions specific and P25 features, including Over-the-Air-Rekeying

(OTAR). Utilizing the KMF, information can be created, inventoried, and distributed to encrypted endpoints including consoles and radios.

The KMF Web-Based Thin Client application provides KMF users with a modern, web-based client interface with improvements to installation, network traffic, and graphical reporting capabilities. This application

ENABLE EFFECTIVE PLANNING, **IMPLEMENTATION, AND EXECUTION OF ROBUST** SECURITY PROCEDURES

enables personnel to generate detailed reports, receive at-a-glance status updates via a web-based interface, and monitor data visualizations to analyze system key material information.

The below figure provides examples of the at-a-glance status and data visualization screens.

FRESH WEB-BASED CLIENT INTERFACE | Property | Propert

Figure 1-3: KMF Web Based Thin Client Sample Screens

Two (2) KMF Servers are included in this budgetary as Option 2. EBRCSA will provide the laptops for the Web-based KMF Thin Client Application.

The proposed KMF supports 19,000 devices, 4 agency partitioning and 65 KMF Thin Client Applications.

DESIGN AND IMPLEMENTATION ASSUMPTIONS

- New KVL5000 with AES and ADP encryptions will be provided for Option 1.
- Existing three (3) KVL 5000 and three (3) KVL 4000 will be used in both options. AES encryption is already available in all KVL 5000.
- All subscriber units must support OTAR with Multi-keying and AES encryption. No subscriber programming or modifications are included.
- All existing sites or equipment locations will have sufficient space available for the system described as required/specified by R56.
- All existing sites or equipment locations will have adequate electrical power (and backup power, if necessary) in the proper phase and voltage and site grounding to support the requirements of the system described by R56.
- Any site/location upgrades or modifications are the responsibility of the EBRCSA.
- Approved local, State, or Federal permits as may be required for the installation and operation of the proposed equipment, are the responsibility of the EBRCSA.
- Any required system interconnections not specifically outlined here will be provided by EBRCSA, including but not limited to dedicated phone circuits or microwave links.
- Additional AIS, IP logging recorder and control stations are excluded in this budgetary and will be proposed separately if needed.
- Additional licenses of the existing IP Logging Recorder/s are not included in this budgetary.
- There is an existing Customer Enterprise Network (CEN) LAN with the needed Firewall to connect the proposed KMF Servers.



- There is an existing CEN to CEN connectivity between Contra Costa County Radio Shop and the Alameda County Master Site. EBRCSA will ensure this connectivity is in place to support this project.
- Motorola Solutions no longer certifies a specific hardware platform for KMF Client. The
 workstation for KMF Client must meet the specification listed below. KMF customers can
 provide their own PC client hardware as long as it meets the MSI specifications.
 - KMF Client Hardware Specifications:
 - o Windows 10 OS
 - Modern web browser (Microsoft Chromium Edge, IE11)
 - Minimum 8GB RAM
 - Minimum 1024x768 resolution color display
 - An optional CD/DVD drive
- Any necessary demarcation points are defined as the Motorola Solutions-provided equipment. This includes demarcation for the following services:
 - 120VAC/ -48DC Power & Circuits
 - Backup Power
 - Grounding
 - Communication Circuits and backhaul links between sites
- Where necessary, the EBRCSA will provide a dedicated delivery point—such as a warehouse— for receipt, inventory, and storage of equipment prior to delivery to the sites.
- Work is performed during normal business hours on non-holidays, Monday Friday, 8am –5pm.
- Union labor and Prevailing Wage labor are not requirements.
- No performance bond is required.
- The Motorola System Technologist will enter a total of 210 operator positions and AIS
 into the KMF if this option is purchased. No additional subscribers will be configured as
 part of this budgetary.
- Rack space and power are available at the proposed site locations (Contra Costa Radio Shop and Alameda County Master Site) to install two (2) G10 servers and two (2) CryptR rack shelves.
- This budgetary assumes a new installation of KMF servers. No existing KMF database or application data is proposed to be migrated.
- The AES algorithm is the only encryption algorithm required.
- The Contra Costa County Radio Shop and Alameda County Shop will be responsible for fleetmapping, codeplug generation and subscriber re-programming, as necessary.
- Motorola will review the county shop provided codeplugs.

AES Encryption – Budgetary Estimates

SECTION 2

EQUIPMENT LIST

2.1.1 Option 1

BLOCK	QTY	NOMENCLATURE	DESCRIPTION
OP_POS_LIC	165	BLN1304	SECURE OPERATION FIELD-ADD LICENSE
OP_POS_LIC	2	T8063	MCC 7500 SECURE VPM ALGORITHM UPGRA
OP_POS_LIC	180	CA00182AB	ADD: AES ALGORITHM
KVL5000	10	T8476B	KVL 5000
KVL5000	10	CA00182AW	ADD: AES ENCRYPTION SOFTWARE
KVL5000	10	CA03358AA	ADD: ASTRO 25 MODE
KVL5000	10	CA03467AA	ADD: NORTH AMERICA MICRO USB CHARGE
KVL5000	10	CA00243AJ	ADD: ADP PRIVACY
KVL5000	10	CB000262A01	CABLE,MICRO USB PROGRAMMING CABLE
KVL5000	10	DQUUSBOTG	STARTECH.COM 5IN MICRO USB TO USB O
KVL5000	10	DQPSA1UB1EE	PORTSMITH USB TO ETHERNET RUGGED EN
KVL5000	10	NNTN7869B	ADAPTER,APX SURVEILLANCE KEYLOAD AD
KVL5000	10	TKN8531C	CABLE FOR RNC, DIU MGEG
KVL5000	10	HKN6182B	CABLE KEYLOADING ADAPTER CGAI
KVL5000	3	T7586	KVL 4000 FLASHPORT UPGRADE
KVL4000	3	CA02010AA	ENH: KVL RADIO AUTHENTICATION UPGRA
KVL4000	3	CA01639AA	ADD: AES ENCRYPTION
KVL4000	3	CA01635AA	ENH: SW UPGRADE TO CURRENT ASTRO 25

2.1.2 Option 2

BLOCK	QTY	NOMENCLATURE	DESCRIPTION
KMF	1	T8749	ASTRO KEY MANAGEMENT FACILITY
KMF	1	ZA01180AA	ADD: KMF SERVER AND WEB CLIENT SW
KMF	1	CA03651AA	ADD: 15,000 CAPACITY
KMF	1	CA01229AA	ADD: KMF REDUNDANCY SOFTWARE
KMF	2	T8698	KMF DL360 G10 SERVER
KMF	2	T7885	MCAFEE WINDOWS AV CLIENT
KMF	2	SQM01SUM0222	KMF CRYPTR
KMF	2	CA00147AG	ADD: BASIC SOFTWARE OPTION
KMF	2	CA00182AV	ADD: AES 256 ENCRYPTION KIT
KMF	2	CA02066AA	AC Line Cord, North America
KMF	2	TKN9285	RACK MOUNT KIT FOR CRYPTR II
KMF	2	DSUSR5637MODEM	U.S. ROBOTICS USB FAX MODEM - REQD FOR KVL- KMF REMOTE COMMUNICATION
KMF	10	DQUUSBOTG	STARTECH.COM 5IN MICRO USB TO USB OTG HOST ADAPTER M/F - USB ADAPTER
KMF	2	DSRMP615A	SPD, TYPE 3, 120V RACK MOUNT, 15A PLUG-IN W/ (6) 15A NEMA 5-15 OUTLETS
CONSOLES	210	BLN1302	OVER THE ETHERNET KEYING (OTEK) OPERATION FIELD-ADD LICENSE
CONSOLES	165	BLN1304	SECURE OPERATION FIELD-ADD LICENSE
CONSOLES	2	T8063	MCC 7500 SECURE VPM ALGORITHM UPGRADE FOR KVL 4000
CONSOLES	180	CA00182AB	ADD: AES ALGORITHM
KVL4000	3	T7586	KVL 4000 FLASHPORT UPGRADE
KVL4000	3	CA02010AA	ENH: KVL RADIO AUTHENTICATION UPGRADE
KVL4000	3	CA01639AA	ADD: AES ENCRYPTION
KVL4000	3	CA01635AA	ENH: SW UPGRADE TO CURRENT ASTRO 25

AES Encryption – Budgetary Estimates

STATEMENT OF WORK

Motorola is proposing to East Bay Regional Communications System Authority the installation and configuration of the following equipment at the specified locations.

Site Name	Major Equipment
Alameda Master Site	KMF Primary Server (Option 2)
Contra Costa Radio Shop	KMF Backup Server (Option 2)

The sections below delineate the general responsibilities between Motorola and East Bay Regional Communications System Authority as agreed to by contract.

3.1 MOTOROLA RESPONSIBILITIES

Motorola's general responsibilities include the following:

- Perform the installation of the Motorola supplied equipment described above
- Schedule the implementation in agreement with East Bay Regional Communications System Authority
- Coordinate the activities of all Motorola personnel and subcontractors under this contract
- Installation, optimization, and programming of Key Management Facility to support Console Encryption (Option 2)
- Network integration into the EBRCSA system and existing CEN (Option 2)
- Administer safe work procedures for installation
- Acceptance Testing of KMF equipment (Option 2)
- Project Management, System Technologist, Post Sale Engineering Support
- Secure Communications Training
- Documentation modifications
 NOTE: No subscriber flashes, programming, or implementation is included

3.2 EAST BAY REGIONAL COMMUNICATIONS SYSTEM AUTHORITY RESPONSIBILITIES

East Bay Regional Communications System Authority will assume responsibility for the installation and performance of all other equipment and work necessary for completion of this project that is not provided by Motorola. General responsibilities for East Bay Regional Communications System Authority include the following:

- Provide all buildings and equipment shelters required for system installation
- Insure communications sites meet space, grounding, power, and connectivity requirements for the installation of all equipment.
- Obtain site access required for project implementation.
- EBRCSA will provide a dedicated delivery point, such as a warehouse, for receipt, inventory and storage of equipment prior to delivery to the site(s).



 Coordinate the activities of all East Bay Regional Communications System Authority vendors or other contractors.

SECTION 4

PRICING SUMMARY

4.1 LIST PRICING FOR OPTION 1

Description	Quantity	List Price
KVL4000 Software Upgrade and AES Encryption	3	\$2,850
KVL5000 with AES Encryption Software	10	\$69,850
MCC7500 Secure Operation Licenses	165	\$643,750
MCC7500 AES Licenses	180	\$162,250
Equipment SUBTOTAL:		\$878,700
System Integration Services		\$95,692
Total:		\$974,392

4.2 LIST PRICING FOR OPTION 2

Description	Quantity	List Price
KVL4000 Software Upgrade and AES Encryption	3	\$2,850
MCC7500 Secure Operation Licenses	165	\$643,750
MCC7500 AES Licenses	180	\$162,250
MCC7500 OTEK Licenses	210	\$844,200
Redundant KMF with AES	1	\$172,746
Equipment SUBTOTAL:		\$1,825,796
System Integration Services		\$306,011
Total:		\$2,131,807

^{*} Both Options are List Price Budgetary Estimates. A Firm Fixed Offer may be requested where discounted special pricing may be applied. Sales Tax not included.

4.3 ESTIMATED PRICING FOR SUPPORT AND MAINTENANCE SERVICES (OPTION 2)

The below table summarized the pricing for post-warranty Maintenance Services after Warranty (Year 1).

Description	Price
Year 2	\$4,098
Year 3	\$4,098

Participating agencies include Alameda and Contra Costa Counties and the following cities and special districts: Alameda, Albany, Antioch, Berkeley, Brentwood, Clayton, Concord, Danville, Dublin, El Cerrito, Emeryville, Fremont, Hayward, Hercules, Lafayette, Livermore, Martinez, Moraga, Newark, Oakley, Pinole, Pittsburg, Pleasant Hill, Pleasanton, Richmond, San Leandro, San Pablo, San Ramon, Union City, Walnut Creek, East Bay Regional Park District, Kensington Police Community Services District, Livermore Amador Valley Transit Authority, Moraga-Orinda Fire District, Rodeo-Hercules Fire District, San Ramon Valley Fire District, California Department of Transportation, Ohlone Community College District, Contra Costa Community College District, Dublin-San Ramon Services District and University of California, Berkeley

AGENDA ITEM NO. 7.

AGENDA STATEMENT OPERATIONS COMMITTEE MEETING MEETING DATE: February 19, 2021

TO: Operations Committee

East Bay Regional Communications System Authority (EBRCSA)

FROM: Tom McCarthy, Executive Director

East Bay Regional Communications System Authority

SUBJECT: Consider Revision to 2021 EBRCSA Meeting Schedule

RECOMMENDATIONS:

Consider revision to 2021 EBRCSA meeting schedule.

SUMMARY/DISCUSSION:

The Operations Committee will review the 2021 meeting schedule for the Board of Directors, Finance Committee, Operations Committee, and Technical Advisory Committee meetings. It has come to the Executive Director's attention that September 22 – 24 is the date of the Annual League of California Cities Conference and there is a scheduled Board of Directors meeting on September 24, 2021. Seeking consideration of a new date for Board of Directors Meeting.

RECOMMENDED ACTION:

Recommend that the Board of Directors consider and approve recommended change to the 2021 EBRCSA meeting schedule.