

QUARTERLY PERFORMANCE PROGRESS REPORT FOR BROADBAND INFRASTRUCTURE PROJECTS

General Information

1. Federal Agency and Organizational Element to Which Report is Submitted Department of Commerce, National Telecommunications and Information Administration	2. Award Identification Number NT10BIX5570158	3. DUNS Number 962696089
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4. Recipient Organization

 Los Angeles Regional Interoperable Communications System Authority 2525 Corporate PL Ste 200, Monterey Park, CA 91754-7672

5. Current Reporting Period End Date (MM/DD/YYYY) 06-30-2016	6. Is this the last Report of the Award Period? <input type="radio"/> Yes <input checked="" type="radio"/> No
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7. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.

7a. Typed or Printed Name and Title of Certifying Official Lam Tran Grant Analyst	7c. Telephone (area code, number and extension) 323 881831
	7d. Email Address Lam.tran@la-rics.org

7b. Signature of Certifying Official Submitted Electronically	7e. Date Report Submitted (MM/DD/YYYY): 08-24-2016
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Project Indicators (This Quarter)**1. Please describe significant project accomplishments completed during this quarter (600 words or less).**

The Broadband Technology Opportunities Programs (BTOP) grant deadline was extended for 3 months, from June 30, 2016 to September 30, 2016 to allow the Los Angeles Regional Interoperable Communications System (LA-RICS) additional time to deploy the LA-RICS Public Safety Broadband Network (PSBN).

Activities during this period includes:

- An in-depth Radio Frequency (RF) design to ensure all potential holes was identified.
- Created 14 more search rings and removed 3 rings and a reviewed of Search rings and identified candidates for each.
- Created detailed paper analysis of each Site Candidate Information Package (SCIP) to use and work with RF engineering to determine viability of each candidate.
- Complete 51 SCIP packages.
- Began initial site walk, Final Site walk, Site Access Agreement (SAA), and Environmental Assessments (EA) scheduling.

Motorola Solutions, Inc. (MSI) has completed site commissioning as well as Transport & Microwave Radio (TMR) commissioning on the 63 fixed sites (individual site testing). Four (4) Cell-On-Wheels (COWs) are ready for deployment and will be deployed in the 3rd quarter. Of the ten (10) additional COWs, nine (9) are currently under construction with SCE providing infrastructure for utilities and one (1) COW (SCE MESA) to become a permanent site. The schedule for the COWs is as follows:

- 5 of the 9 COW's have all infrastructure complete
- The remaining 4 COW's are slated for completion by September 15, 2016.
- Hardware installation and fiber splicing are ongoing.
- Connectivity for both power and fiber is scheduled for completion on all sites September 26, 2016.
- Motorola Solution Inc. (MSI) is preparing the COW's for integration into the Network soon after the Rev9 software is the upgrade from Rev7. This upgrade to the Core must be completed before the commissioning of each COW and prior to integration into the Network.
- Integration for the COW's is scheduled to begin in late October or early November 2016.

Cluster Tuning was completed per the scheduled provided in the previous report paving the way to allow the Network to take on a more proactive stance in testing with live users including upcoming special events.

As we move into the Operations portion of the Network, each site is observed and tested prior to handing off to the MSI Network Operations Command Center (NOCC) located in Schaumburg. This procedure is a review of an individual site in order to provide critical data, including alarm data and Key Performance Indicators (KPI), to the core engineers on what to expect prior to making any additional or necessary adjustments.

The efforts to complete the LA-RICS Network Operations Command Center (NOCC) are ongoing. The Sheriffs Communication Center (SCC) is scheduled for completion in the first quarter of 2017. The other two locations, Fire Command & Control Facility (FCCF) and LA-RICS's Headquarter, are currently up and running but not manned. Future Los Angeles Sheriff Department (LASD) and Internal Service Department (ISD) technicians are attending classes preparing to manage and run either of the chosen locations for the Network Operations Command Centers (NOCC). These classes are expected to continue through November of 2016.

LA-RICS Board Activity

The LA-RICS Board of Directors was provided with a demonstration of video, maps, Global Positioning System (GPS) data and two-way voice traffic transmission between the Los Angeles Sheriff Department (LASD) and the Los Angeles County Fire Department (LAFD) utilizing LA-RICS Public Safety Broadband Network (PSBN) and the Land Mobile Radio (LMR) systems.

Outreach Activity

A meeting with Timothy Lippman, Senior Deputy to Supervisor Sheila Kuehl took place on April 26th to discuss proposed Land Mobile Radio (LMR) sites in the 3rd Supervisorial District.

Interim Executive Director John Radeleff and representatives from the LA-RICS Team met with representatives from the Department of Veterans Affairs on May 3rd to discuss their use of LMR and Long Term Evolution (LTE) for the Veterans Affairs Greater Los Angeles Public Safety Personnel.

Ongoing meetings have occurred in an effort to bridge relationships and provide demonstrations to the Cities of Bell, Signal Hill, Paramount,

La Verne, Irwindale, and Sierra Madre on May 11th, June 2nd, June 13th, June 14th, and June 23rd.

In March 2016, Interim Executive Director John Radeleff met with the Police Chief of Bell and other City Officials to provide them with a demonstration of the PSBN system. On May 11, 2016, the City Council of Bell approved a request from the City Manager to execute reinstatement of their LA-RICS Membership.

Tasks in support of continued development and distribution of ongoing communications involved website support for posting the LMR Final Environmental Impact Report (FEIR). Ongoing activities include weekly outreach status meetings, site access agreement meetings, design meetings, and other related activities in support of executing stakeholder outreach.

The outreach team developed a strategy and identified a list of potential topics for upcoming editions of the LA-RICS Dispatch, which is LA-RICS' official newsletter. The outreach team will be using guidelines from this document to develop future editions of the Dispatch.

The outreach team inventoried the LA-RICS homepage for outdated information and graphics, and began preparing for a content overhaul.

2. Please provide the percent complete for the following key milestones in your project. Write "0" in the Percent Complete column and "N/A" in the Narrative column if your project does not include this activity. If you provided additional milestones in your baseline plan, please insert them at the bottom of the table. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent reporting quarter. Please provide a narrative description if the percent complete is different from the target provided in your baseline plan (300 words or less).

	Milestone	Percent Complete	Narrative (describe reasons for any variance from baseline plan or subsequent written updates provided to your program officer)
2a.	Overall Project	87	Awaiting final close out binders and Acceptance Test Plan (ATP) of all PSBN sites.
2b.	Environmental Assessment	100	No construction activities occurred that required monitoring.
2c.	Network Design	100	Network design is complete. No change in the site configuration. All sites have both power and backhaul delivered (including all microwave paths) and have visibility to the core.
2d.	Rights of Way	100	Complete.
2e.	Construction Permits and Other Approvals	100	Complete.
2f.	Site Preparation	100	Complete.
2g.	Equipment Procurement	100	Complete.
2h.	Network Build (all components - owned, leased, IRU, etc)	100	Complete.
2i.	Equipment Deployment	100	Complete.
2j.	Network Testing	95	Cluster tuning has been completed. Wide Area Testing is under review.
2k.	Other (please specify): N/A	0	N/A

3. To the extent not covered above, please describe any challenges or issues faced during this past quarter in achieving planned progress against the project milestones listed above. In particular, please identify any areas or issues where technical assistance from the BTOP program may be useful (600 words or less).

In-Vehicle Routers Installation Update

108 in-vehicle routers have been installed to date.

LASD still experiencing Network mapping diagram and integration issues.

Full scale installation of in-vehicle routers pending resolution of Network mapping diagram and integration issues.

LASD working toward a solution with Motorola and Sierra Wireless vendors on mapping and integration issues.

As the final end to end testing is completed Motorola Solutions, Inc. (MSI) has been working with the commercial carriers to bring the final back-haul configuration for each of the sites that were on high speed data (HSD) circuits. MSI has completed 60 of the 63 static sites and moved those sites into operations preparing for the final ATP for alarms and the core.

4. Please report the following information regarding network build progress. Write "0" in the Total column and "N/A" in the Narrative column if your project does not include this activity. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent reporting quarter. Please provide a narrative description if the total is different from the target provided in your baseline plan (600 words or less).

Indicator	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)

Indicator	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
New network miles deployed	156	Includes all 15 point to point microwave links, including intermediate hops going to the non-LTE sites.
New network miles leased	0	No new network miles leased.
Existing network miles upgraded	100	Calculates distance between nodes used on Los Angeles County and City of LA fiber.
Existing network miles leased	494	Existing network miles leased from Time Warner Cable and AT&T to Los Angeles County Fire Command Control Facility.
Number of miles of new fiber (aerial or underground)	0	Essentially less than a mile for site communication.
Number of new wireless links	12	PSBN microwave links.
Number of new towers	30	There are currently 30 Towers installed.
Number of new and/or upgraded interconnection points	0	There is currently no new and/or upgraded interconnection points.

For questions 5 and 6 please include information relating to agreements that you are negotiating or have entered into, or that your sub recipient, contractor or subcontractor is negotiating or entered into.

5a. If applicable, please provide the following information with regard to agreements with broadband wholesalers and/or last mile providers as a result of your project.

Indicators	
Number of signed agreements with broadband wholesalers or last mile providers	0
Number of agreements currently being negotiated with broadband wholesalers or last mile providers	0
Average term of signed agreements (in quarters)	0

5b. Please list the names of the wholesale and last mile providers with whom you have signed agreements (100 words or less). Providers: N/A

5c. What wholesale services are being provided by this project? Please describe below. As an attachment to this report, please provide pricing plans (in \$ per month) associated with each wholesale service provided by your product (100 words or less). Wholesale services description: N/A

5d. If you have designated a third party to operate all or a portion of your network, please provide the name and contact information for this third party, indicate if this entity is a sub recipient, contractor, and/or subcontractor, and describe with specificity the portion of your network this third party operates (600 words or less). N/A

6. Please provide the data according to the type of subscriber. Write "0" in the Total column and "N/A" in the Narrative column if your project does not pass or serve a particular subscriber type. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent reporting quarter. Please provide a narrative description if the total is different from the target provided in your baseline plan (300 words or less).

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Broadband Wholesalers or Last Mile Providers	Providers with signed agreements receiving new access	0	N/A
	Providers with signed agreements receiving improved access	0	N/A

Subscriber Type	Access Type	Total	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
	Providers with signed agreements receiving access to dark fiber	0	N/A
	Please identify the speed tiers that are available and the number of subscribers for each	0	N/A
Community Anchor Institutions (including Government institutions)	Total subscribers served	0	It is estimated that 606 CAIs will be added to the completed Network.
	Subscribers receiving new access	0	Pending system acceptance.
	Subscribers receiving improved access	0	Pending system acceptance.
	Please identify the speed tiers that are available and the number or subscribers for each	0	Pending system acceptance.
Residential / Households	Entities passed	0	N/A
	Total subscribers served	0	N/A
	Subscribers receiving new access	0	N/A
	Subscribers receiving improved access	0	N/A
	Please identify the speed tiers that are available and the number of subscribers for each	0	N/A
Businesses	Entities passed	0	N/A
	Total subscribers served	0	N/A
	Subscribers receiving new access	0	N/A
	Subscribers receiving improved access	0	N/A
	Please identify the speed tiers that are available and the number of subscribers for each	0	N/A

7. Please describe any special offerings you may provide (600 words or less).

N/A

8a. Have your network management practices changed over the last quarter? Yes No

8b. If so, please describe the changes (300 words or less).

N/A

9. Community Anchor Institutions:

Using the table below, please provide a list by service area of the community anchor institutions (including Government institutions) connected to your network as a result of BTOP funds. Figures should be reported for the most recent reporting quarter only (NOT cumulatively). Also indicate whether your organization is currently providing broadband service to the anchor institution. Finally, provide a short narrative description with examples of how institutions are using BTOP-funded infrastructure (300 words or less).

Institution Name	Service Area (town or county)	Type of Anchor Institution (as defined in your baseline)	Are you also the broadband service provider for this	Narrative description of how anchor institutions are using BTOP-funded infrastructure

			institution? (Yes / No)	
N/A	N/A	N/A	N/A	N/A

Project Indicators (Next Quarter)

1. Please describe significant project accomplishments planned for completion during the next quarter (600 words or less).

LTE-2

The Department of Commerce's National Telecommunication and Information Administration (NTIA) has provided to LARICS a 90-day extension to work through the search rings and selection to provide a final version accompanied with a budget.

Through our initial reviews of the 60 plus search rings the team has procured 51 active sites not including back haul only sites. Below is the current status of the activities:

- Preliminary Radio Frequency (RF) design and review on all candidates to be completed by early August (RF Map).
- Provide initial environmental review (Basic site data) by July 2016.
- Develop initial site outreach & Site Access Agreement (SAA) plan.
- Initial Forecasting of dates and begin site walks.

We expect to have candidate section completed including Site Candidate Information Packages (SCIPs). The constructability and Site Access Agreement (SAA) process for each site will follow in preparation for the environmental review, polygons and site viability to develop a new PSBN site. The majority of this work will be on going and completed throughout the year.

The Phase 2 Plan and budget is scheduled to be submitted to NTIA on or before the 30th of September 2016. The Plan will include the initial narrative with updates to current planning and activities and completions. It will include the following:

1. Revised GAANT chart.
2. Site by site Budget.
3. List of the primary sites to build.
4. List of back up sites that will be in the EA portion as back up sites in case any primary site falls out due inability to get and SAA etc.
5. Update on KLC plan and progress.
6. Plan to integrate with Phase 1 Operations.

The remaining 4 COWs are slated for completion and connectivity of both power and fiber for all 9 COWs will be done in September, 2016. Integration for the COW's is scheduled to begin in late October or early November 2016.

In-Vehicle Routers Installation Update

On May 2, 2016, Los Angeles Sheriff Department (LASD) began installation of in-vehicle routers in Ford Crown Victorias at a rate of approximately 40 vehicles per month. The vehicle installation rate is scheduled to increase to 60-80 vehicles per month beginning in June 2016 and 80-105 vehicles per month in July 2016.

Projection for the next quarter includes the resolution to network mapping and integration issues and the anticipated vehicle installation rate to increase to a rate of 60-80 vehicles per month.

LA-RICS is currently working with Greg Ford from FirstNet and MSI on Key Learning Condition (KLC).

- Four (4) of the five (5) deliverables for KLC#1 are schedule for completion by the end of the 3rd quarter of 2016. The 5th deliverable will not occur until sometime in 2017.
- Load test to meet KLC#2 and #3 is schedule for the 4th quarter of 2016.
- Currently working with Greg Ford to add a 4 KLC with regards to applications hosting and testing.

KPI Projections.

It is estimated that 606 Community Anchor Institutions (CAI) (schools, hospitals, public safety entities) could be directly connected to the completed network. The CAI estimated number will be updated with actual once the network is fully operational. It is expected 156 New Miles to be deployed, Zero New Miles to be leased, 100-110 Existing Miles to be upgraded, 77 Wireless Transmission Sites, 527 Existing Network Miles to be leased and Zero Improved CAIs.

Outreach

Planned Outreach to potential users including ongoing contact and discussions with the Department of Veterans Affairs, Department of

Defense (DOD) and Metropolitan Transportation Authority (MTA).

Continued meetings with member agencies who opted out are ongoing. Memorandum of Understanding (MOU) for test equipment was approved by the LA-RICS JPA Authority at its meeting of July 7th.

2. Please provide the percent complete for the following key milestones in your project. Write "0" in the Planned Percent Complete column and "N/A" in the Narrative column if your project does not include this activity. If you provided additional milestones in your baseline plan, please insert them at the bottom of the table. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the next reporting quarter. Please provide a narrative description if the percent complete is different from the target provided in your baseline plan (300 words or less).

	Milestone	Planned Percent Complete	Narrative (describe reasons for any variance from baseline plan or any other relevant information)
2a.	Overall Project	89	Operations classes will be ongoing through the end of the year of 2016.
2b.	Environmental Assessment	100	No variance from baseline.
2c.	Network Design	100	Complete.
2d.	Rights of Way	100	Complete.
2e.	Construction Permits and Other Approvals	100	Complete.
2f.	Site Preparation	100	Complete.
2g.	Equipment Procurement	100	Complete.
2h.	Network Build (all components - owned, leased, IRU, etc.)	100	Complete.
2i.	Equipment Deployment	100	Complete.
2j.	Network Testing	100	Complete.
2k.	Other (please specify): N/A	0	N/A

3. Please describe any challenges or issues anticipated during the next quarter that may impact planned progress against the project milestones listed above. In particular, please identify any areas or issues where technical assistance from the BTOP program may be useful (600 words or less).

All phases of the executed contract with Motorola Solutions, Inc. (MSI) for build out of Public Safety Broadband Network (PSBN) Part 1 will be completed by November 2016. Close out documentation for 90% of all static sites will be completed and received by the Authority from MSI by August 2016. Classes for the member agencies and users training are ongoing. Operations classes will be scheduled through the end of the year of 2016 and should be the final piece to provide LA-RICS the essential tools required to operate and maintain the PSBN Network.

At this time, LA-RICS does not anticipate any challenges in bringing the COWs online. Any issues that we encountered will be in the subsequent reports.

Infrastructure Budget Execution Details

Activity Based Expenditures (Infrastructure)

1. Please provide details below on your total budget, cumulative actual expenditures (for the period ending the current quarter), and cumulative anticipated expenditures (for the period ending next quarter) for each line item, including detailed disbursements of both matching funds and federal funds from project inception through end of this quarter (actual) or next quarter (anticipated). Actual and anticipated figures should be reported cumulatively from award inception to the end of the applicable reporting quarter.

Budget for Entire Project				Actuals from Project Inception through End of Current Reporting Period			Anticipated Actuals from Project Inception through End of Next Reporting Period		
Cost Classification	Total Cost (plan)	Matching Funds (plan)	Federal Funds (plan)	Total Cost	Matching Funds	Federal Funds	Total Costs	Matching Funds	Federal Funds
a. Administrative and legal expenses	\$21,638,208	\$9,051,435	\$12,586,773	\$23,208,482	\$10,016,610	\$13,191,872	\$23,328,753	\$10,030,759	\$13,297,994
b. Land, structures, right-of-ways, appraisals, etc.	\$13,924,063	\$6,503,266	\$7,420,797	\$6,955,853	\$6,955,853	\$0	\$6,955,853	\$6,955,853	\$0
c. Relocation expenses and payments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
d. Architectural and engineering fees	\$31,932,812	\$1,405,994	\$30,526,818	\$30,098,558	\$1,569,511	\$28,529,047	\$31,099,244	\$1,569,511	\$29,529,733
e. Other architectural and engineering fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
f. Project inspection fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
g. Site work	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
h. Demolition and removal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
i. Construction	\$22,375,009	\$0	\$22,375,009	\$20,167,026	\$0	\$20,167,026	\$21,533,924	\$0	\$21,533,924
j. Equipment	\$41,713,113	\$1,927,892	\$39,785,221	\$35,672,653	\$3,243,660	\$32,428,993	\$36,656,159	\$3,574,768	\$33,081,391
k. Miscellaneous	\$6,318,019	\$1,870,500	\$4,447,519	\$3,388,823	\$48,719	\$3,340,104	\$3,431,004	\$56,839	\$3,374,165
l. SUBTOTAL (add a through k)	\$137,901,224	\$20,759,087	\$117,142,137	\$119,491,395	\$21,834,353	\$97,657,042	\$123,004,937	\$22,187,730	\$100,817,207
m. Contingencies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
n. TOTALS (sum of l and m)	\$137,901,224	\$20,759,087	\$117,142,137	\$119,491,395	\$21,834,353	\$97,657,042	\$123,004,937	\$22,187,730	\$100,817,207

2. Program Income: Please provide the program income you listed in your application budget and actuals to date through the end of the reporting period.

a. Application Budget Program Income: \$0	b. Program Income to Date: \$0
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