Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 6:32:41 PM	**Easygrants ID: 7309**
Funding Opportunity: Broadband Technology Opportunities Program	**Applicant Organization:** MOTOROLA, INC
Task: Submit Application - BTOP	**Applicant Name:** Derek Phipps

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A. General Application Information

Applicant Information	
Name and Federal ID for Applicant	
DUNS Number	001325463
CCR # (CAGE)	3F331
Legal Business Name	MOTOROLA, INC
Point of Contact (POC)	DEREK PHIPPS 4252201784 Ext. derekphipps@motorola.com
Alternate POC	TRAVIS BOETTCHER 4252415364 Ext. Travis.J.Boettcher@motorola.com
Electronic Business POC	MOTOROLA 8475765000 Ext. motorola@email.mot.com
Alternate Electronic Business POC	MOTOROLA 8475765000 Ext. motorola@email.mot.com

Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix	
First Name	Derek
Middle Name	
Last Name	Phipps
Suffix	
Telephone Number	425-220-1784

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Fax Number	509-863-9208
Email	derekphipps@motorola.com
Title	Sales Vice President, MSSI

Additional Contact Information of Person to be Contacted on Matters Involving this Application:

Project Role	Name	Phone	Email
Secondary Point of Contact	Travis , Boettcher	4512415364	travis.j.boettcher @motorola.com

Environmental Point of Contact

Prefix:
Name: Shah, Aneesh
Suffix:
Telephone Number: 8584044424
Title: Systems Integration Specialist

Organization Classification	
Type of Organization	For-profit Entity
Is the organization a small business?	No
Does the organization meet the definition of a socially and economically disadvantaged small business concern?	No

Authorized Organizational Representative	
AOR Name	PHIPPS, DEREK

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Result	Applicant Authorized

Project Title and Project Description

Project Title: The San Francisco Bay Area Wireless Enhanced Broadband Project (BayWEB)

Project Description: The project is a public-private partnership between Motorola, public safety agencies, and broadband providers in the San Francisco Bay area. The project will deploy a comprehensive Middle Mile network that will expand broadband service for emergency responders utilizing LTE technology and offer wireless broadband service to community anchor institutions and residential and business end users.

CCI Priority Checklist

The following items were selected from the CCI Priority Checklist:

1. This project will deploy Middle Mile broadband infrastructure to community anchor institutions.

2. The project will deploy Middle Mile broadband infrastructure and has incorporated a public-private partnership among government, non-profit and for-profits entities, and other key community stakeholders.

3. This project will deploy Middle Mile broadband infrastructure in economically distressed areas.

4. This project will deploy Middle Mile broadband infrastructure to community colleges.

5. This project will deploy Middle Mile broadband infrastructure to public safety entities.

6. This project will deploy Middle Mile broadband infrastructure and either includes a Last Mile infrastructure component in unserved or underserved areas or has received commitments from one or more Last Mile broadband service providers to utilize the Middle Mile components. Any Last Mile components in rural areas do not exceed 20% of the total eligible costs of the project.

7. This project will deploy Middle Mile broadband infrastructure and the applicant has proposed to contribute 30 percent or more in non-federal cost match.

Comprehensive Community Infrastructure Components

The following items were selected from the Comprehensive Community Infrastructure Components:

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Middle Mile

BIP Applicants

Have you also applied to BIP for funding in the sample proposed funded service area?

- No

If Yes, please provide the project title and Easygrants ID number:
Title of Joint BIP Application:
Easygrants ID:

Other Applications

Is this application being submitted in coordination with any other application being submitted during this round of funding?

- No

Easygrants ID	Project Title

If YES, please explain any synergies and/or dependencies between this project and any other applications.

Individual Background Screening

Is the Applicant exempt from the Department of Commerce requirements regarding individual background screening in connection with any award resulting from this Application?

- No, Applicant is subject to these requirements

If the answer to the above question is "No," please identify each key individual associated with the Applicant who would be required to complete Form CD-346, "Applicant for Funding Assistance," in connection with any award resulting from this Application:

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Name	Title	Employer
Eugene A. Delaney	President, Enterprise Mobility Solutions	Motorola, Inc.
Edward J. Fitzpatrick	Chief Financial Officer	Motorola, Inc.
Mark Moon	Sr. Vice President, Worldwide Field Operations, Enterprise Mobility Solutions	Motorola, Inc.
Derek Phipps	Sales Vice President, MSSI	Motorola, Inc.
Travis Boettcher	Sales Manager	Motorola, Inc.
Zia Siddiqui	Project Engineer (Design)	Motorola, Inc.
Aneesh Shah	Systems Integration Specialist (Pre-sale Project Manager)	Motorola, Inc.
Richelle Owens	Finance Manager	Motorola, Inc.
Mark Anthony	Sr. Commercial Counsel	Motorola, Inc.
Kevin Tenbrunsel	EMS Director of Private Broadband Business Development	Motorola, Inc.
Michael Larson	Sr. Business Development Manager	Motorola, Inc.
TBD	Lead Project Manager	Motorola, Inc.
TBD	Lead Project Engineer	Motorola, Inc.

B. Executive Summary, Project Purpose and Benefits

Essay Question

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Executive Summary of the proposed project:

While one of the country's most culturally diverse and aesthetically beautiful areas, the San Francisco Bay area confronts significant challenges. Susceptible to earthquakes, coastal flooding threats, and wildfires, the Bay Area is also one of the highest risk areas for terrorism attacks. Nevertheless, emergency responders currently compete with the general public for bandwidth, and public safety's ability to respond adequately using existing broadband networks is often hampered during normal daily operations, such as a multi-car accident on an area highway, let alone during a major disaster. In addition, these ten counties consist of dense urban, suburban, and very rural areas that are challenging for broadband providers to serve. This area also has been hard hit by the current economic crisis with an unemployment rate in excess of 13%. Numerous communities in the Bay Area are economically distressed, and others lack any access to broadband.

The Bay Area Wireless Enhanced Broadband (BayWEB) project directly addresses these complex sets of problems. In partnership with public safety entities in the counties of Alameda, Contra Costa, San Mateo, San Francisco, Marin, Sonoma, Napa, Solano, Santa Cruz, and Santa Clara, California, and multiple wireless broadband providers, Motorola proposes to build and operate BayWEB, which is a vibrant Middle Mile broadband network that will serve public safety entities, community anchor institutions, and end user customers throughout the ten-county Bay Area. This area spans 7,368 square miles, which is close to the size of Massachusetts, with a population of approximately 7 million people living in more than 100 cities and towns, which makes the Bay Area larger than 37 other States. The Bay Area also is visited by nearly 15 million tourists annually. There are 28,490 community anchor institutions, 27 community colleges, and millions of end users, including approximately 2.5 million households and 186,095 businesses in the proposed funded service area.

The BayWEB project will feature a vibrant Middle Mile network deployed at approximately 200 unique radio sites across the proposed funded service area. Motorola's network deployment will include both: (i) a Public Safety subsystem to provide wireless broadband service to public safety and government users based on Long Term Evolution (LTE) standards; and (ii) a Public Access subsystem to improve public broadband Internet access by community anchor institutions and business and residential end users.

Utilizing 700 MHz spectrum, the Public Safety subsystem will improve and enhance the interoperability of public safety communications across the region and enable emergency

responders to have broadband access to mission critical information, which will improve the delivery of health and safety services to millions of California residents. The system is scalable to accommodate public safety networks throughout California and can serve as a model for future public safety broadband build-outs throughout the United States. In addition, Verizon Wireless will be a vendor with which Motorola will have an agreement to ensure that that public safety users will be able to roam beyond the proposed Middle Mile network when needed as well as enjoy access to a commercial wireless network within the proposed funded service area, if necessary.

The Public Access subsystem will utilize unlicensed 5.2, 5.4, and 5.8 GHz spectrum and a broadband Point-to-Multipoint and Point-to-Point solution that will improve public broadband Internet access. It will spur faster and more affordable broadband service to community anchor institutions, community colleges, and residential and business end users. This public broadband network will be completely open, and all local broadband providers will be able to interconnect at any approximately 200 aggregation points. Motorola has commitments from established wireless broadband providers – airCloud Communications, 101Netlink, Skyline Broadband Service, Cal DSL, Surfnet Communications, Internet Free Planet, and JAB Wireless, Inc. – to utilize the Public Access subsystem to expand the availability of affordable wireless broadband service throughout the Bay Area.

Motorola is extremely qualified to deploy and operate the proposed middle mile network. Motorola is a global communications leader that has been providing communications solutions for more than 80 years. Through other public-private partnerships, Motorola has substantial experience in deploying and operating a multitude of networks around the world, ranging from country-wide commercial cellular systems to state and region-wide voice and broadband networks. For example, in North America, Motorola owns and operates: (i) the South Carolina Palmetto public safety network, with 76 sites and more than 25,000 users; and (ii) the Illinois Starcom public safety network with more than 200 sites and approximately 18,000 users from 1,500 different governmental agencies. Motorola also has deployed the Austria TETRON Nationwide, Denmark Dansk Beredeskabs Kommunikation (DBK) Nationwide TETRA Managed Service, Australia MMR Victoria, and Ireland Nationwide TETRA Managed Service networks.

The public-private partnership between Motorola and public safety entities in the Bay Area is critical to the success and sustainability of BayWEB. This partnership is embodied in an

executed agreement between Motorola and the Alameda County Sheriff as executive sponsor and Regional Mutual Aid Coordinator for Region 2, the Northern California Coastal Region, which includes the entire Bay Area, on behalf of the Policy Group of the Bay Area Regional Interoperability Communications System (BayRICS). The BayRICS Policy Group will work with Motorola to address quality of service, access, interoperability, policy, and system management issues for the Public Safety subsystem of the BayWEB project.

The BayWEB project is "shovel ready" because it will rely upon existing BayRICS facilities. In 2007, the Bay Area embarked upon BayRICS in order to improve interoperable communications throughout the ten counties which comprise the Bay Area Urban Area Security Initiative (UASI). The program involves a multi-jurisdiction and multi-disciplinary approach to interoperability, and includes communications capabilities for first responders and public safety professionals, as well as all other government services including public works, transportation agencies, and critical infrastructure organizations. BayRICS includes land mobile radio for voice interoperability, an interoperable information sharing strategy, and a robust ten county microwave network for backhaul.

Because the BayWEB project utilizes existing infrastructure, the proposed Middle Mile network will be deployed in an efficient and cost-effective manner. The cost of this project is $72,483,637, for which Motorola seeks a grant in the amount of $50,593,551. Motorola proposes to make in-kind contributions to the project that have a total value of $21,890,086 million, which represents slightly more than 30% of the total budget for the BayWEB project.

The project will have a significant economic impact. Motorola estimates that the BayWeb project will create 1,315 jobs, which includes 374 direct jobs, 553 indirect jobs, and 388 induced jobs.

The project will be instrumental in meeting the broadband needs of the Bay Area. Motorola estimates that 48,000 public safety users will utilize the Public Safety subsystem of the proposed Middle Mile network by the end of the fifth year of the project. Motorola also estimates that broadband operators will utilize the Public Access subsystem to provide broadband service to 1600 community anchor institutions (other than public safety), 12,000 residential customers, and 800 businesses during that same time period.

The BayWEB project is wholly dependent upon Motorola's securing funding under the Comprehensive Community Infrastructure (CCI) Program. This funding will permit Motorola to

utilize the approximately 200 existing tower sites and other infrastructure in the Bay Area to deploy a state-of-the-art, Middle Mile network that will: (i) give first responders access to wireless broadband services, dynamic multimedia applications, and increased interoperability of data and voice services, and (ii) enable broadband providers access to deliver affordable wireless broadband service to community anchor institutions, community colleges, and end user customers. The BayWEB project meets all of the priorities of the CCI program and would accomplish the larger objectives of the Recovery Act.

Project purpose:

The purposes of the BayWEB project are threefold: (i) to improve access to, and use of, broadband service by public safety agencies by deploying a Middle Mile network that provides first responders access to vibrant wireless broadband services and increased interoperability of data and voice services; (ii) to stimulate the demand for broadband, economic growth, and job creation by deploying a Middle Mile network that broadband providers can access in order to deliver affordable wireless broadband service to community anchor institutions, community colleges, and end user customers; and (iii) to enable broadband providers to offer broadband service to consumers residing in currently unserved communities in the Bay Area. Each of these purposes supports the statutory objectives of the BTOP program.

Improving Access To, And Use Of, Broadband By Public Safety

Public safety entities in the ten counties in the Bay Area – Alameda, Contra Costa, San Mateo, San Francisco, Marin, Sonoma, Napa, Solano, Santa Cruz and Santa Clara – have been working collaboratively since 2006 with community anchor institutions, private entities, and non-governmental agencies to develop a comprehensive, regional public safety network that would provide emergency responders with broadband access and increased interoperability capabilities. Regional catastrophic event planning identified key gaps in emergency preparedness and response and underscored the need for a hardened state-of-the-art broadband network that would be available to emergency responders during a critical incident or a catastrophic event.

The need for such a public safety network is particularly acute in the Bay Area. The Bay Area sits on multiple earthquake faults, is subject to coastal flooding threats, and routinely experiences wildfires in rural areas. Recent earthquakes and firestorms have vividly underscored the natural threats to communities and businesses in the region. In addition, the Bay Area – which is home

to the second largest stock options exchange in the U.S. and 30 of the world's largest banks – is also one of the highest risk areas for terrorism attacks.

The BayWEB project will address these critical safety needs. The Public Safety subsystem of the Middle Mile network that Motorola proposes to deploy will provide public safety and government users with wireless broadband service utilizing 700 MHz spectrum based on LTE standards. The project will enable emergency responders to share information efficiently and quickly and in a cost-effective manner; ensure interoperability between system users (including one to many communications); provide system resiliency; and expand access to dynamic multimedia applications. As a result of the BayWEB project, public safety entities will be better equipped to prevent, protect against, respond to, and recover from emergencies.

Stimulating Demand For Broadband, Economic Growth, and Job Creation

Broadband is a vital engine of economic growth and job creation. See National Broadband Plan at xi ("broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life"). And, as the FCC recently recognized, ensuring broadband access to community anchor institutions is critical to the operation of this engine. Id. at 154 (noting that improving access to broadband by community anchor institutions "will not only expand broadband options for the institutions themselves but also will improve availability in the community as a whole").

In addition to providing a resilient broadband network for public safety, the BayWEB project also will deploy a Public Access subsystem to provide affordable broadband services to the public at large. The Public Access subsystem will utilize unlicensed 5.2, 5.4, and 5.8 GHz spectrum and a broadband Point-to-Multipoint and Point-to-Point solution that will improve public broadband Internet access. This public broadband network will be completely open, and all local broadband providers will be able to interconnect at any one of approximately 200 interconnection points. Motorola has commitments from established wireless broadband providers – airCloud Communications, 101Netlink, Skyline Broadband Service, Cal DSL, Surfnet Communications, Internet Free Planet, and JAB Wireless, Inc. – to utilize the Public Access subsystem to expand the availability of affordable wireless broadband service throughout the Bay Area by serving community anchor institutions and business and residential end users.

Many of the communities that comprise the proposed funded service area are economically distressed areas, including Watsonville and San Pablo with per capita income of $17,193 and $18,687 and a 24-month unemployment rate of 20.2% and 16.8%, respectively, as well as the entirety of Solano County. The BayWEB project will bolster growth in these economically distressed areas by deploying facilities to which providers can interconnect in order to offer affordable broadband service.

Enabling Broadband Service To Unserved Communities

While the Bay Area as a whole is not unserved, there are a number of communities in the proposed funded service area that currently lack any access to broadband. Relying upon the State of California's Broadband Availability Maps and its own independent investigation, Motorola has identified the following communities in the proposed funded service area that currently lack access to any broadband: Dillon Beach, Nicasio, Woodville, Aetna Springs, Oakville, Spanish Flat, Seacliff, Loma Mar, Pescadero, Birds Landing, and Piercy.

As part of the BayWEB project, Motorola proposes to deploy facilities that will enable broadband service providers to reach these communities for the first time. As a result, the Public Access subsystem of the BayWEB project will make broadband available to a total of 15,897 people in 6,042 households in currently unserved communities in the Bay Area.

Recovery Act and Other Governmental Collaboration:

Motorola and its partners on the BayWEB project are taking a cutting edge approach to collaboration, particularly with respect to other federal government programs. The Public Safety subsystem of the BayWEB project involves providing wireless broadband service to public safety and government users and improving interoperability of public safety systems. Collaboration with other federal public safety initiatives is essential in order to avoid duplication of effort.

The public-private partnership between Motorola and public safety entities in the Bay Area will be overseen by the Policy Group of the Bay Area Regional Interoperability Communications System (BayRICS). The BayRICS Policy Group will work with Motorola to address quality of service, access, interoperability, policy, and system management issues for the Public Safety subsystem. BayRICS is an initiative launched in 2007 by public safety entities in the Bay Area in order to improve interoperable communications throughout the ten counties which comprise

the Bay Area Urban Area Security Initiative (UASI). Since 2003, the Bay Area has invested approximately $100 million in BayRICS from various funding and grant sources.

The Urban Areas Security Initiative is a federal program that focuses on enhancing regional terrorism preparedness in major metropolitan areas. Created in 2003 by the U.S. Department of Homeland Security, the UASI program provides federal grants to support the planning, equipment, training and exercise needs of high-threat, high-density urban areas around the country, which includes the Bay Area. The UASI funds are intended primarily to assist urban areas in building the necessary capabilities to prevent, protect against, respond to, and recover from acts of terrorism.

The Bay Area UASI has received a federal UASI grant that will be used to deploy wireless broadband technology for public safety based on Long Term Evolution (LTE) standards to 10 sites in the Bay Area. This initial deployment will lay the foundation for providing emergency responders with a state-of-the-art broadband network.

Like the federal UASI program, the Recovery Act provides that BTOP is intended to "improve access to, and use of, broadband service by public safety agencies." The BTOP funds that are the subject of this application will be used to complete the proposed Middle Mile network by deploying broadband infrastructure to approximately 200 sites – a deployment that would not otherwise occur without BTOP funding.

Fit with BTOP CCI Priorities:

The BayWEB project involves the deployment of a vibrant Middle Mile network that satisfies each of the seven CCI funding priorities.

First, the project will deploy Middle Mile broadband infrastructure with a commitment to offer new or substantially upgraded service to community anchor institutions. The Public Safety subsystem of the proposed Middle Mile network will provide wireless broadband service to public safety and government users in order to improve the delivery of health and safety services. The Public Access subsystem of the proposed Middle Mile network will be completely open, and all broadband providers will be able to interconnect at any of approximately 200 interconnection points. The Public Access subsystem will enable broadband providers to offer new and more affordable broadband Internet access services to community anchor institutions, and Motorola has identified seven wireless broadband providers ready and willing to do so.

Second, the project will deploy Middle Mile broadband infrastructure and incorporate a public-private partnership among government, non-profit and for-profit entities, and other key community stakeholders, particularly those that have expressed a demand or indicated a need for access or improved access to broadband service. The BayWEB project involves a public-private partnership that includes: (i) Motorola, which will deploy and operate the Middle Mile network; (ii) the Alameda County Sheriff as executive sponsor and Regional Mutual Aid Coordinator for Region 2, the Northern California Coastal Region, which includes the entire Bay Area, on behalf of the Policy Group of the Bay Area Regional Interoperability Communications System, which will collaborate with Motorola on quality of service, access, interoperability, policy, and system management issues associated with the Public Safety subsystem; (iii) the Northern California Regional Intelligence Center, which will utilize the Public Safety subsystem to facilitate the sharing of information between first responders and the private sector in combating terrorism; and (iv) seven for-profit providers that have committed or expressed their intent to use the Public Access subsystem to deploy broadband service to community anchor institutions and business and residential subscribers.

Third, the project will deploy Middle Mile broadband infrastructure with the intent to bolster growth in economically distressed areas. The Public Access subsystem has been designed to permit broadband providers to offer service in such hard hit areas as Antioch, East Palo Alto, Gilroy, Hayward, Pittsburg, Richmond, San Leandro, San Pablo, and Watsonville, California, as well as the entirety of Solano County. For example, Watsonville and San Pablo have per capita income of $17,193 and $18,687 and a 24-month unemployment rate of 20.2% and 16.8%, respectively, and are among some of the most economically distressed areas in the Bay Area. The BayWEB project will bolster growth in these areas by deploying facilities to which providers can interconnect in order to offer affordable broadband service.

Fourth, the project will deploy Middle Mile broadband infrastructure with a commitment to serve community colleges that have expressed a demand or indicated a need for access or improved access to broadband service. The project will provide the 27 community colleges in the Bay Area with a more affordable option in achieving the following stated goals of the California Community College Districts, including implementing a mass notification system to provide text and voice messaging, email, instant messaging, and other forms of mass communications and enhancing campus access to wireless technology. The South Bay Regional Public Safety

Training Consortium, which represents eight community colleges in the Bay Area, has written in support of funding for the BayWEB project.

Fifth, the project will deploy Middle Mile broadband infrastructure with a commitment to serve public safety entities that have expressed a demand or indicated a need for access or improved access to broadband service. The Public Safety subsystem of the BayWEB project is intended to provide a regional public safety solution to improve interoperability, ensure affordable broadband alternatives, and provide for a hardened public safety network that would be available in the event of an emergency or catastrophic event. The project will enable emergency responders to access dynamic multimedia applications that will make the entire Bay Area a better and safer place, including the ability to: (i) obtain real-time geo-location information about damage, dangers, road conditions, and personnel and vehicle locations; (ii) receive data files and video, such as photographs associated with Amber Alerts; and (iii) create virtual command centers to allow access to critical systems from anywhere.

Sixth, the project will deploy Middle Mile broadband infrastructure that includes commitments or non-binding letters of intent from one or more Last Mile broadband service providers. Motorola has obtained commitments or non-binding letters of intent from the following seven Last Mile wireless broadband providers that seek to use the Public Access subsystem of the Middle Mile network to offer broadband service throughout the Bay Area – Coastal Sierra, Inc. d/b/a Skyline Broadband Service; Cal DSL; Surfnet Communications; Internet Free Planet; 101Netlink; airCloud Communications; and JAB Wireless.

Seventh, the project will deploy Middle Mile broadband infrastructure, and Motorola proposes to contribute a non-Federal match that equals 30 percent of the total eligible costs of the project.

Is the applicant seeking a waiver of the Buy American provision pursuant to section x.Q of the NOFA?

- No

Is the applicant deliquent on any federal debt?

- No

If Yes, justification for deliquency:

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Are you seeking a waiver of any requirement set forth in the NOFA that is not mandated by statute or applicable law?

- Yes

Is the applicant a current recipient of a grant or loan from RUS?

- No

C. Partners

Are you partnering with any other key institutions, organizations, or other entities for this project?

- Yes

If YES, key partners are listed below:

Project Role: Other Name: Brooks, Ronald Phone: 4154368027 Email: Rbrooks@ncric.org Address 1: 450 Golden Gate Avenue Address 2: 14th Floor Address 3: City: San Francisco State: California Zip Code: 94102 Organization: Northern California Regional Intelligence Center (Fusion Center) Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No
Project Role: Other Name: Prince, Bill Phone: 6509179279 Email: bill@SkylineBroadbandService.com Address 1: 17287 Skyline Blvd PMB 102 Address 2: Address 3: City: Woodside State: California Zip Code: 94062 Organization: Skyline Broadband Service Organization Type: For-profit Entity

Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Ahearn, Gregory
Phone: 5102726866
Email: Gahern@acgov.org
Address 1: Lakeside Plaza
Address 2: 1401 Lakeside Drive
Address 3: 12th Floor
City: Oakland
State: California
Zip Code: 94612
Organization: Alameda County Sheriff's Office, executive sponsor and Regional Mutual Aid Coordinator for Region 2, the Northern California Coastal Region, on behalf of the Policy Group of the Bay Area Regional Interoperability Communications System
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Jasty, Chau
Phone: 2098324420
Email: cjasty@gmail.com
Address 1: 1660 West Linne Suite J11
Address 2:
Address 3:
City: Tracy
State: California
Zip Code: 995377
Organization: Cal DSL
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Morgenthaler, Mark
Phone: 4083531386
Email: ken@surfnetc.com
Address 1: 25600 Hillside Road
Address 2:
Address 3:

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City: Los Gatos
State: California
Zip Code: 95033
Organization: Surfnet Communications Inc.
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Abernathy, George
Phone: 7074697930
Email: george@myifp.com
Address 1: 3069 Alamo Dr.
Address 2: Suite 313
Address 3:
City: Vacaville
State: California
Zip Code: 95687
Organization: Internet Free Planet
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Johannesen, Seth
Phone: 7079234000
Email: seth@101netlink.com
Address 1: P.O. Box 101
Address 2:
Address 3:
City: Whitethorn
State: California
Zip Code: 95589
Organization: 101Netlink
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Westwood, Bret
Phone: 8014370747
Email: bwestwood@jabbroadband.com

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Address 1: 400 Inverness Parkway
Address 2: Suite 330
Address 3:
City: Englewood
State: Colorado
Zip Code: 80112
Organization: JAB Wireless Inc.
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Wilson, Dan
Phone: 4255771170
Email: dwilson@aircloud.com
Address 1: 3478 Buskirk Avenue
Address 2: Suite 1000
Address 3:
City: Pleasant Hill
State: California
Zip Code: 94521
Organization: airCloud Communications
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Description of the involvement of the partners listed above in the project.

The BayWEB project is a public-private partnership to deploy a vibrant Middle Mile broadband network that will simultaneously serve public safety's vitally important needs and provide community anchor institutions and end users throughout the San Francisco Bay Area with affordable broadband service. On the public safety side, Motorola is partnering with the Alameda County Sheriff as executive sponsor and Regional Mutual Aid Coordinator for Region 2, the Northern California Coastal Region, which includes the entire Bay Area, on behalf of the Policy Group of the Bay Area Regional Interoperability Communications System ("BayRICS"). The Northern California Regional Intelligence Center ("Fusion Center") also will be a critical partner, utilizing the proposed public safety network to facilitate the sharing of information between local, regional, and state first responders and the private sector in their efforts to detect

and combat terrorism. On the public Internet side, Motorola is partnering with the following wireless Internet service providers ("ISPs") to deploy broadband service to community anchor institutions and business and residential end users throughout the Bay Area – Coastal Sierra, Inc. d/b/a Skyline Broadband Service; Cal DSL; Surfnet Communications; Internet Free Planet; 101Netlink; airCloud Communications; and JAB Wireless.

The BayRICS Policy Group is teaming with Motorola to ensure that the BayWEB project will fully meet the unique needs of the public safety community. The BayRICS Policy Group and Motorola will collaborate on quality of service, access, interoperability, policy, and system management issues. The BayRICS Policy Group also will facilitate site access to and use of the "shovel ready" sites owned or leased by BayRICS participants, as well as provide all necessary Federal Communications Commission licenses and temporary authorizations, if any, that may be required for operation of the Public Safety subsystem of the network. The BayRICS Policy Group will give Motorola access to its microwave and radio voice system, the capabilities of which will be expanded and which will be used to provide backhaul between sites. Motorola will provide the BayRICS Policy Group with its expertise and experience in deploying and operating public safety networks, as well as contributing the 30% match to the project.

The Fusion Center is another important public partner on the BayWEB project. The Fusion Center's network is designed to withstand threats that would disable other networks, making it an invaluable resource to banks and other institutions that rely upon critical infrastructure in order to provide service. Using the broadband capabilities of the BayWEB's Public Safety subsystem, the Fusion Center will be able to provide a wide array of media to first responders, including real-time video, building blueprints, mapping information, and information sharing capabilities critical to terrorist attack prevention. At a time when regional broadband communications have never been more essential, BayWEB will promote enhanced communications and information sharing capabilities with the capacity and reliability required to respond efficiently and effectively to any emergency in the Bay Area, including those related to terrorist activities.

Through Motorola's strategic relationships with a multitude of wireless ISPs, these ISPs will be able to provide affordable broadband service in the Bay Area by utilizing the Public Access subsystem of the Middle Mile network, which will provide all broadband operators with increased broadband capacity and backhaul options and expanded broadband coverage. Partners Skyline Broadband Service (which serves parts of San Mateo, Santa Clara and Santa Cruz

counties), airCloud Communications (which serves Contra Costa and Alameda counties), and 101Netlink (which operates a network covering more than three hundred miles along California Highway 101) plan to use the Public Access subsystem to reach customers to whom they currently do not provide broadband service. The Public Access subsystem will be used by partner Surfnet Communications to expand the provision of broadband service in unserved or underserved mountain and coastal communities in the Bay Area and by partner Internet Free Planet to promote greater broadband availability in the Bay Area. Partner Cal DSL currently serves markets outside of the proposed funded service area, but views this project as an opportunity to expand its broadband service offerings into the Bay Area. Finally, JAB Wireless, which currently operates broadband networks throughout Utah and Colorado, intends to expand its business into the Bay Area by utilizing the Public Access subsystem to sell wholesale broadband service. These strategic partnerships will enable faster and more affordable broadband access to numerous households, businesses, and community anchor institutions in the Bay Area.

Motorola has followed a proactive approach to involving local communities in the project. Through the ten-county area, Motorola has engaged community anchor institutions in a dialogue regarding their unique needs – a dialogue that will continue as the project is implemented. The project has already received letters of overwhelming support from numerous Bay Area police departments, fire departments, and other public safety entities. In addition, political representatives of various communities have enthusiastically endorsed the project. For example, Oakland Mayor Ronald V. Dellums expressed his support for the BayWEB project's public safety efforts as well as the project's potential for economic development as Oakland attempts to emerge from an unprecedented economic crisis. Motorola is invested in involving the local community, both now and in the future, because the BayWEB project's success depends on its ability to meet the needs of the entire community.

D. Congressional Districts

Applicant Headquarters

- Illinois

Project Service States

California

Project Service Areas

California - 1

California - 6

California - 7

California - 8

California - 9

California - 10

California - 11

California - 12

California - 13

California - 14

California - 15

California - 16

Will any portion of your proposed project serve federally recognized tribal entities?

- Yes

Indicate each federally recognized tribal entity your proposed project will serve.

Dry Creek Rancheria

Lytton Rancheria

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Funding Opportunity: Broadband Technology Opportunities Program	**Applicant Organization:** MOTOROLA, INC
Task: Submit Application - BTOP	**Applicant Name:** Derek Phipps

Have you consulted with each of the federally recognized tribal entities identified above?

- No

E. Service Area Details

Is the applicant seeking a waiver for providing less than 100% coverage of a service area?

- No

Project Details

Service Area Type: Middle Mile
Service Area Name: BayWEB Service Area
Rural Classification of the Last Mile Service Area: Non-Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 5,940
Total Population in Proposed Service Area: 6,879,825
Total Number of Households in Service Area: 2,499,262
Total Number of Businesses in Service Area: 186,095
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 28,490
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 77,496
Estimated Percentage of Households with Access to Broadband: 99
Estimated Percentage of Households Subscribing to Broadband: 51

F. Community Anchor Summary

Community Anchor Summary

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Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: MOTOROLA, INC
Task: Submit Application - BTOP	Applicant Name: Derek Phipps

Schools (k-12)	3328
Libraries	392
Medical and Healthcare Providers	23052
Public Safety Entities	567
Community Colleges	27
Public Housing	144
Other Institutions of Higher Education	385
Other Community Support Organization	512
Other Government Facilities	83
TOTAL COMMUNITY ANCHOR INSTITUTIONS	**28490**
Historically Black colleges and Universities	0
Tribal Colleges and Universities	0
Alaska Native Serving Institutions	0
Hispanic Serving Institutions	16
Native Hawaiian Serving Institutions	0
TOTAL MINORITY SERVING INSTITUTIONS	**16**

G. Project Benefits

Submitted Date: 3/26/2010 6:32:41 PM	**Easygrants ID: 7309**
Funding Opportunity: Broadband Technology Opportunities Program	**Applicant Organization:** MOTOROLA, INC
Task: Submit Application - BTOP	**Applicant Name:** Derek Phipps

Demographics

Jobs	
How many direct jobs-years will be created from this project?	374
How many indirect jobs will be created from this project?	553
How many jobs will be induced from this project?	388

Methodology used to estimate jobs:
Motorola's estimate of jobs created is consistent with the methodology endorsed by the Council of Economic Advisers in "Estimates of Job Creation From the American Recovery and Reinvestment Act of 2009." However, rather than dividing spending by a loaded salary of $92,000 to arrive at a number of jobs created, Motorola estimated the number of direct jobs created using a model that is more specific to its business and financial tracking systems.

Motorola's model takes into account: (1) direct project resources;(2) manufacturing, shipping, and order processing functions;(3) support functions such as human resources, supply chain management, and research and development resources;(4) other resources including installation and site development subcontractors and local maintenance support personnel; and (5) customer employees and consultants who would be involved in the project. Motorola developed the parameters of its estimates based on historical data and past project experience.

In addition to direct jobs created, a study by the Information Technology & Innovation Foundation, "The Digital Road to Recovery: A Stimulus Plan to Create Jobs, Boost Productivity and Revitalize America," found that every job created by the communications sector has a multiplier effect of 2.52. This multiplier may be further broken down into factors for indirect and induced jobs of 1.48 and 1.04, respectively. Motorola applied these multipliers in arriving at indirect and induced jobs created.

Project Impact:
BayWEB is a pioneering Middle Mile project, both in its system design and business model. The project will include both: (i) a Public Safety subsystem to provide wireless broadband service to public safety and government users based on Long Term Evolution (LTE) standards; and (ii) a Public Access subsystem to improve public access to broadband service by community anchor institutions and business and residential end users. The project is a public-private partnership between Motorola, public safety agencies, and broadband providers in the San Francisco Bay area that will facilitate the availability of affordable broadband service throughout

the proposed funded service area. BayWEB will jointly and comprehensively serve, directly and indirectly, communities in the 10-county Bay Area: Residents, Businesses, Community Anchor Institutions, Community Colleges, Medical and Healthcare providers, local Service Providers, and Public Safety.

Residential: The Public Access subsystem of the proposed Middle Mile network will be used to provide broadband service to residents of the 10-county Bay Area. The design of this project allows for a Point-to-Multipoint (PMP) base station at approximately 200 sites. This PMP base station is capable of providing fixed broadband coverage throughout the proposed funded service area, much of which is rural. This PMP infrastructure can then be used by any broadband Internet Service Provider (ISPs) to provide broadband service to residential end users to the Bay Area. For some 67 unserved communities within the funded service area, the BayWEB project will permit broadband providers to offer service for the first time.

Business: The Public Access subsystem also will be used to provide broadband service to businesses in the 10-county Bay Area. The same design of the project discussed above will enable broadband providers to serve approximately 180,000 businesses in the proposed funded service area. Access to wireless broadband service will enable businesses to track internal operations, establish more efficient business processes, improve resource allocation, increase productivity, and reach new customers and geographic markets, all of which are critical to driving job creation, growth and productivity gains. The BayWEB project will increase the availability of broadband service to businesses and should make broadband more affordable by introducing additional competitive alternatives.

Community Anchor Institutions: The Public Access subsystem will be used to provide broadband service to community anchor institutions throughout the proposed funded service area. There are approximately 28,000 community anchor institutions that reasonably could be served using the network architecture Motorola intends to deploy. Motorola has identified seven established broadband providers ready and willing to offer new and more affordable broadband services to community anchor institutions throughout the Bay Area.

Community Colleges: There are 27 community colleges located within the proposed funded service to which broadband service could be provided using the Public Access subsystem of the Middle Mile network. The wireless broadband service that the project will enable could be used by educators to create and disseminate technology-enabled curricula relevant to the educational

needs of students. Connecting these institutions will enhance education by providing students and teachers with access to a vast array of resources such as text-based materials, photos and images, videos, animations, interactive lessons, data-manipulation tools, and educational programs, among others. Ensuring high-speed broadband access for all students has become a critical national issue especially when considering the necessity for the use of technology in assessment, accountability, engagement, and preparing students for work and life in the 21st century. Expanding broadband capabilities for community colleges will stimulate consumer demand, lay the foundation for greater broadband adoption, and will benefit the entire community by delivering improved education.

Medical and Healthcare Providers: BayWEB will benefit medical and healthcare providers by increasing the availability of a dynamic wireless broadband service. Broadband access service facilitates and improves coordination among healthcare professionals, health information exchange, retention and retrieval of medical records, remote analysis of medical information, disease prevention and management of chronic diseases, and sharing of healthcare professionals – all while simultaneously increasing demand for broadband services. As the January 2008 report by the California Broadband Taskforce titled "The State of Connectivity – Building Innovation Through Broadband" recognized, the benefits of e-health go beyond the patient. For example, the Report indicates that 83% of parents of children with special healthcare needs report driving more than an hour to see a specialist. This driving time results in missed work and lost wages and harms the environment. The BayWEB project will address these impacts by deploying the infrastructure necessary for broadband providers to offer service that could be used to allow families the opportunity to be served at local clinics through telemedicine applications that enable remote screening, diagnosis, treatment, and monitoring.

Service Providers: The Public Access subsystem will provide the access, transport, and wholesale service that broadband providers can use to provide affordable broadband service to residents, businesses, anchor institutions, and community colleges in the Bay Area. Motorola has received letters from established wireless ISPs – including airCloud Communications, Skyline Broadband Service, Cal DSL, Surfnet Communications, Internet Free Planet, Inc., 101Netlink and Jab Wireless – that have committed to or expressed an interest in using the Public Access subsystem to expand the availability of affordable wireless broadband service throughout the Bay Area, including unserved and economically distressed areas. The public wireless broadband network will be completely open, and any broadband provider will be able to interconnect at any one of approximately 200 interconnection points.

Public Safety: The Public Safety subsystem of the proposed Middle Mile network will provide wireless broadband service to public safety and government users in order to improve the delivery of health and safety services. The project will enable emergency responders to share information efficiently and quickly and in a cost-effective manner; ensure interoperability between system users (including one to many communications); and provide system resiliency. It also will expand access to dynamic multimedia applications that would not be available without this project, including real time mobile video to/from field officers and "office mobility," meaning the ability for a public safety official's office to now be "mobile in the field." Broadband capability is critical during disasters, providing real-time geo-location information about damage, dangers (such as release of airborne chemicals or radiation), road conditions, and personnel and vehicle locations. Broadband-enabled devices allow public safety field personnel to immediately receive data files and video, such as photographs associated with Amber Alerts, which enhances their ability to respond quickly to crisis situations. In the event of evacuations, virtual command centers allow critical systems to be accessed from anywhere, reducing the probability of on-site system failure because of the disaster. The benefit to the communities in the proposed funded service area is more effective and efficient public safety, which simply makes the Bay Area region a better and safer place to live. Also, public safety users should be able to roam beyond the proposed Middle Mile network when needed as well as take advantage of coverage within the footprint of the network on a commercial wireless network, if necessary. For these services, Motorola will look to Verizon Wireless. Verizon Wireless is a leader in voice and data services over its nationwide network, and currently operates America's most reliable wireless network, servicing more than 91 million customers nationwide. Verizon Wireless will provide voice, data and/or roaming services and other wireless equipment and services as a vendor and has the experience to handle a project of this size and complexity.

Vulnerable Populations:
There are an abundance of vulnerable population groups – including minorities, children, the elderly, and low-income individuals – in the project's proposed funded service area. Specifically, more than 2.8 million of the population in the proposed funded service area (approximately 43%) consists of racial and ethnic minorities. Over 1.7 million – or about 26% – are under the age of 20. More than 850,000 – or approximately 13% – are 62 years old and older. In addition, approximately 37,870 people in the proposed funded service area have household income below the poverty line. As the FCC recently recognized in its National Broadband Plan, broadband adoption lags considerably among these vulnerable populations, and they are being "left behind."

The Public Access subsystem of the proposed Middle Mile network will help meet the broadband needs of these vulnerable populations. First, because the public broadband network will be completely open, any broadband provider can utilize capacity on the Public Access subsystem to serve vulnerable communities by interconnecting at any one of approximately 200 interconnection points. Second, through strategic relationships with wireless Internet service providers, the BayWEB project will promote the availability of broadband to vulnerable populations by enabling last mile broadband service to be extended to more than 3000 schools and libraries, approximately 500 community support organizations, and approximately 100 public housing sites. Third, the BayWEB project will deploy wireless broadband – a technology that, according to studies, minorities such as African-Americans and Hispanics – are increasingly using. Wireless Internet Use, Pew Internet and American Life Project, (July 2009) (available at http://www.pewinternet.org/Reports/2009/12-Wireless-Internet-Use.aspx); Hispanic Institute and Mobile Future, Hispanic Broadband Access: Making the Most of Mobile, Connected Future, (Sept. 15, 2009) (available at http://thehispanicinstitute.net/files/u2/Hispanics_and_Broadband_Access_0.pdf).

Level of Need:

The San Francisco Bay Area is in dire need of a vibrant Middle Mile broadband network that will: (1) provide public safety and government users with dynamic wireless broadband services and increased interoperability of voice and data services; and (2) give broadband providers access to the facilities and capacity necessary to deliver affordable broadband service to community anchor institutions, community colleges, and end user customers. Through a unique design and a variety of public and private sector partnerships, the proposed BayWEB project will satisfy these needs by deploying a Public Safety subsystem for use by first responders and government users and a Public Access subsystem for use by the public at large. Moreover, the project will leverage existing infrastructure as an efficient means to address the broadband needs of the area by taking advantage of existing sites, towers, backhaul, and support equipment and facilities in deploying the Middle Mile network.

Need for the Public Safety Subsystem

Public safety needs in the San Francisco Bay Area are relatively unique. The Bay Area region is exposed to hazards associated with large earthquakes due to the numerous major active faults in the area – the results from which can be catastrophic as evidenced by recent earthquakes in Haiti and Chile. The Bay Area encompasses coastal areas that are prone to flooding. Strong Pacific Ocean storms between late November and early March bring substantial rainfall, which saturates

and weakens the soil causing annual flooding. The Bay area also continues to experience multiple wildfires in rural areas. The Oakland Firestorm of 1991 – which killed 25 people, injured 150 others, and destroyed 1,520 acres, including 3,354 single-family dwellings and 437 apartment and condominium units – demonstrated the threat to urban environments that Nature poses. The Bay Area region's landscape encompasses inland and coastal mountain ranges, remote and rural valleys, agricultural areas and sprawling suburban areas and densely populated urban areas, all of which present significant public safety challenges. The Bay Area is also considered one of the highest risk areas for terrorist attacks, given that it is host to large financial institutions, internationally renowned universities and research facilities, and millions of residents as well as tourists.

Prevention, response, and recovery from a natural or human disaster have been the focus of the Bay Area's collaborative public safety planning efforts. Public safety entities in the Bay Area have conducted regional catastrophic event planning that identified key gaps in emergency preparedness and response, the most significant of which is the lack of a resilient interoperable broadband network that will provide effective communications to emergency responders during a critical incident (day-to-day) or a catastrophic event.

Because of the importance of interoperable communications among first responders, in 2003, the Bay Area public safety organizations (including transportation) embarked on an aggressive strategy to build an interoperable "system of systems" for public safety communications called the Bay Area Regional Interoperability Communications System (BayRICS). This interoperable network consists of several important subsystems that holistically provide all multi-discipline, multi-jurisdictional voice and data interoperable communications. The subsystems of this network include a robust, self healing, multi-county microwave network that interconnects the ten counties that comprise the Bay Area Urban Area Security Initiative (UASI) – Alameda, Contra Costa, San Mateo, San Francisco, Marin, Sonoma, Napa, Solano, Santa Cruz, and Santa Clara – and extends into the Sacramento Valley. The microwave network provides backhaul for both the land mobile radio systems within the ten counties and an interoperable data network.

However, much work remains to be done. Resilient and affordable broadband service to provide efficient information sharing for public safety is currently unavailable in the Bay Area. In addition, interoperable capabilities between data and voice are lacking. The high cost of commercial broadband services, lack of interoperability between system users (including one to many communications), and lack of resiliency are significant challenges to public safety

agencies, transportation agencies, anchor institutions and key private sector partners charged with prevention, response and recovery responsibilities in the event of an emergency. Currently, public safety and transportation compete with the general public for bandwidth, which results in significant overloads on the commercial Bay Area networks, even during normal daily operations, such as a multi-car accident on a highway or a multi-casualty incident.

A state-of-the-art broadband network dedicated for public safety would improve the response and the recovery capabilities of public safety, transportation systems, key anchor institutions and key private sector partners such as the banking industry. It would enable coordinated deployment of interoperable data communications, such as information sharing technologies, regional notification/warning networks, automated license plate readers, automated citation devices, automatic vehicle/location technology, public safety geo-spatial tools, control devices for traffic signals, automated fare collection, public safety mobile data applications, and next generation 911 technology.

The Public Safety subsystem of the proposed Middle Mile network will meet these public safety needs. It will deploy a state-of-the-art public safety network that will give first responders access to affordable wireless broadband services, increased interoperability of data and voice services, and dynamic multimedia applications, which would benefit all those living, working, or just visiting in the Bay Area.

Need for Public Access Subsystem

In addition to the Public Safety subsystem, the design of the Middle Mile network also features a dynamic Public Access subsystem that will facilitate broadband access to approximately 6.6 million residents and 180,000 businesses and more than 28,000 community anchor institutions, including schools, libraries, medical and healthcare providers, public safety entities and community colleges. This Public Access subsystem will help meet the public broadband needs of the Bay Area, which faces unique challenges due to economic conditions, rural services areas, and a high proportion of vulnerable populations. It is an open network that any broadband service provider can utilize in order to offer broadband service.
Economic Conditions. Historically, the Bay Area has been one of the highest economic producing areas in the nation. Business conducted in the region -- including agriculture, banking, exports, telecommunications, biomedical, and petroleum production -- generates $300 billion in

economic activity. The region has significant research facilities and is home to 27 community colleges as well as several major private and public universities.

However, the Bay Area has been hard hit by the recent economic crisis. The unemployment rate in the region currently exceeds 13%. In addition, the housing crisis has been particularly acute in the Bay Area, and foreclosure rates in San Francisco are well above the national average, with one in every 743 housing units receiving at least one foreclosure filing in February 2010. RealtyTrac, San Francisco, CA Real Estate Trends. According to data from the Bureau of Labor Statistics and based on the 24-month average unemployment rates from January 2008 to December 2009, various communities in the proposed funded service area as well as the entirety of Solano County are considered "economically distressed."

The Public Access subsystem of this Middle Mile project will allow broadband providers to make available affordable broadband service to tens of thousands of community anchor institutions and millions of end users, which will support the economic recovery of the entire Bay Area. A 2007 report by the Brookings Institute found that, for every 1% penetration, employment is projected to increase by 0.2 to 0.3%. In addition, the U.S. Department of Commerce has determined that communities with broadband not only increased the employment rate by 1% but also added 0.5% to the growth of business establishments and the share of IT entities. Because the project will deploy a vibrant wireless broadband solution, it may be a more affordable option for residential users who have lost their homes or are transitioning to alternative housing arrangements.

Rural Areas. According to the California Rural Health Policy Council, 92% of California's landmass is rural. Communities in these rural areas lack broadband because the costs of deploying current or next-generation technologies are prohibitive. With respect to the Bay Area in particular, the January 2008 report by the California Broadband Taskforce titled "The State of Connectivity – Building Innovation Through Broadband" indicates that 67 communities in the Bay Area have no access to wireline broadband services, which are dispersed throughout the proposed funded service area. All of these 67 communities consist of remote rural communities.

Broadband access outside of the dense urban and suburban areas of the Bay Area is often provided by a relatively small number of local wireless internet service providers (ISPs). Because of the high cost of deploying infrastructure in less populated areas, most wireless ISPs have established small niche markets that they can serve profitably. In these areas, wireless

broadband service from large providers may not be as reliable or robust, which allows local wireless ISPs to offer an attractive competitive alternative. But the geographic reach of the wireless ISPs is limited and in those areas where they do not compete, the costs for broadband service paid by community anchor institutions, small businesses and residents tend to be higher.

The Public Access subsystem of the proposed Middle Mile network will allow wireless ISPs to access the necessary infrastructure to expand their service offerings to meet the broadband needs of remote and rural communities within the Bay Area. Motorola has identified seven established wireless ISPs that have committed to or expressed an interest in using the Public Access subsystem to expand the availability of affordable wireless broadband service. The ten counties that comprise the Bay Area will benefit tremendously from the project as it will enable service providers that may currently only serve one of those counties to enter new markets within an adjacent county, or even enter into new markets across the entire region.

Vulnerable Populations. Despite the importance of broadband, many communities populated by the minority, elderly, low-income, or otherwise underserved populations have been denied the full benefits of broadband. This digital divide between those with broadband connectivity and those without is a serious and persistent problem that the BayWEB project will help address.

Specifically, more than 2.8 million of the population (approximately 43%) in the proposed funded service area consists of racial and ethnic minorities. Over 850,000 – or more than 13% – are 62 years old and over. In addition, approximately 38,000 people in the proposed funded service area have household income below the poverty line. The Public Access subsystem of the Middle Mile network will facilitate increased access to broadband by these vulnerable populations. The project will deploy infrastructure that will be accessible by broadband service providers at any one of approximately 200 interconnection points, which will enable these providers to offer affordable broadband service to these vulnerable population groups.

H. Technology

Technology Type

Indicate the technology that will be used to deliver last mile services. The following items were selected:

Wireless - Terrestrial Fixed

Wireless - Terrestrial Mobile

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Other:

Technology Questions

Methodology for Area Status:

The proposed funded service area is not "unserved," and Motorola does not have adequate information to determine whether it is "underserved." However, Motorola has identified a number of communities in the Bay Area that currently lack access to broadband, which the proposed Middle Mile network could be used to serve. Motorola initially identified unserved communities using the State of California's Broadband Availability Maps available at www.calink.ca.gov/taskforce/appendix_maps.asp. U.S. Census block maps for the proposed funded service area were overlaid onto the broadband availability maps to determine those communities that are unserved. To verify the unserved status of these areas, Motorola reviewed the list of communities in the "Final Report of the California Broadband Task Force" that were categorized as unserved (as of January 2008) as well as a list of competitors included in the report. Motorola updated the list of competitors by researching wireline and wireless broadband services provided in the proposed funded service area. Zip codes and addresses within those communities were randomly selected, and Motorola accessed each broadband service provider's website to determine service availability, or lack thereof, in those communities. As a result of its investigation, Motorola determined that the following communities in the proposed funded service area currently lack access to broadband: Dillon Beach, Nicasio, Woodville, Aetna Springs, Oakville, Spanish Flat, Seacliff, Loma Mar, Pescadero, Birds Landing, and Piercy. Any broadband provider could utilize the Public Access subsystem of the Middle Mile network to make broadband available to a total of 15,897 people in 6,042 households in these currently unserved communities.

Description of Network Openness:

Motorola will operate the proposed Middle Mile network consistent with the nondiscrimination and network interconnection obligations contained in section V(D)(3)(b) of the NOFA.

The Public Safety subsystem of the Middle Mile network will operate on 700 MHz frequencies allocated for public safety use. Use of these frequencies is limited by the FCC to entities engaged

in public safety activities. 47 C.F.R. §90.528. This subsystem will provide managed services that use private network connections solely for the provision of public safety communications.

The Public Access subsystem of the Middle Mile network will be accessible by broadband providers that can interconnect to the network at any of approximately 200 interconnection points. Subject to current and reasonably anticipated capacity limitations, Motorola will offer interconnection arrangements on commercially reasonable rates and terms, with (1) any content and application provider that requests a direct physical connection to more efficiently or effectively offer Internet services to anchor institutions within the services area, and (2) any other facilities-based broadband provider that requests physical interconnection to facilitate the exchange of Internet traffic between networks.

Motorola will adhere to the FCC's Internet Policy Statement, FCC 05-151, and any subsequent FCC rulings or statements. Community anchor institutions and end user customers with access to the Public Access subsystem will be able to: (i) access lawful Internet content of their choice; (ii) run applications and use services of their choice, subject to the needs of law enforcement; (iii) connect their choice of legal devices that do not harm the network; and (iv) enjoy competition among network providers, application and service providers, and content providers. The Public Access subsystem of the Middle Mile network will not favor any lawful Internet applications and content over others. Motorola commits that, as required by the NOFA, it will not provide or sell to any Internet content, application, or service providers, including any affiliated providers, any service that privileges, degrades, or prioritizes – based on source, ownership, or destination – any packet transmitted entirely over the Public Access subsystem.

All nondiscrimination and interconnection obligations are subject to reasonable network management and law enforcement needs. Motorola may employ generally accepted technical measures to provide acceptable service levels, such as caching (including content delivery networks), application-neutral bandwidth allocation, and measures to address spam, denial of service attacks, illegal content, and other harmful activities.

Motorola will post the above policies prominently on its website and provide notice to participants of any changes to those policies.

System Design:

The BayWEB project features a middle mile network deployed at approximately 200 sites across ten counties in the San Francisco Bay Area. The network enables mobile broadband communications for public safety first responders and broadband Internet public access to community anchor institutions and end users.

Public Safety Subsystem: The Public Safety subsystem will utilize Long Term Evolution "LTE" technology operating on 700 MHz frequencies to provide mobile broadband service to public safety first responders. LTE is a 4th generation technology platform that will also be used by a majority of 700 MHz commercial broadband operators. The FCC is considering adopting LTE as the standard technology for public safety broadband networks. The relevant components of this subsystem are as follows:

LTE Radio Access Network (RAN): The LTE RAN consists of base stations, antennae systems, and ancillary equipment that will be deployed at approximately 200 existing sites in the Bay Area. Each site will have an "LTE eNodeB" base station that allows users to access the network with peak data rates of 2.5 Mbps and edge data rates of 200 Kbps in the uplink direction. Downlink peak and edge rates are 6.5 Mbps and 768 Kbps respectively. The LTE RAN equipment will be funded by the BTOP grant.

Backhaul and Distribution Network: BayWEB will leverage existing point-to-point (PTP) microwave and optical fiber networks to connect public safety and government locations and users to the LTE Evolved Packet Core (EPC). Existing microwave links connect to the existing microwave network Point of Presence (POP), which is connected to the Alameda County Emergency Operations Center (EOC). Where existing sites lack the necessary backhaul capacity, Motorola will install licensed microwave links to backhaul LTE traffic to the EPC at the Alameda County EOC. The microwave network utilize licensed frequencies in the 4.9, 6, 11, 18, and 23 GHz bands and will be funded by the BTOP grant.

LTE Evolved Packet Core (EPC): The EPC connects public safety and government users with enterprise networks and external networks. The EPC provides various features such as Quality of Service (QoS), security, and device authentication. The LTE EPC will be located in San Francisco and will act as a geographically redundant EPC to the primary EPC at Alameda County EOC. All components of the EPC will be funded by the BTOP grant.

Network Operations Center (NOC): The NOC will be hosted by the Alameda County Sheriff and operated by Motorola at the Alameda County EOC. This facility will house the network management infrastructure. The backup NOC will be located in San Francisco. Only network management elements added to the NOC will be funded by the BTOP grant.

User Devices: The Public Safety subsystem will utilize user devices based on the LTE standard for public safety and government users. User devices will not be funded by the BTOP grant.

Public Access Subsystem:

The Public Access subsystem will utilize unlicensed spectrum to provide fixed wireless Internet access for community anchor institutions and residents. The subsystem consists of PMP Access Point (AP) clusters located at each of the sites used in the Public Safety subsystem and will facilitate broadband service to community anchor institutions and unserved communities located nearby. Each PMP cluster includes four APs to provide 360-degree coverage and an aggregate throughput of 160 Mbps. A Cluster Management Module (CMM) aggregates AP traffic and connects to POP sites via the backhaul network. Each POP site acts as an interconnection point where any broadband service provider can connect to their respective NOCs. Broadband service providers can also deploy PMP subscriber modules at community anchor institutions or underserved communities and access the PMP AP clusters to connect back to their respective NOCs. The PMP Access Point Clusters, CMM, ancillary networking equipment, and PTP backhaul radios are funded by the BTOP grant:

Frequency Spectrum for Wireless Users:

The Public Safety subsystem will operate on 700 MHz frequencies and requires FCC approval, which has been requested by the BayRICS Policy Group.

The Public Access subsystem operates on unlicensed frequencies in the 5 GHz band.

The microwave backhaul component utilizes FCC-licensed frequencies in the 6, 11, 18, and 23 GHz bands.

Advantages for proposed system:

The BayWEB Project offers the following advantages for the participating Bay Area Counties:

- Shovel ready approach that heavily leverages existing assets.
- 4G LTE broadband network to improve public safety first responder effectiveness and enhanced disaster response.
- Broadband interoperability for Bay area agencies.
- Interoperability with legacy and future public safety wireless voice networks.
- 4G mobile broadband speeds to provide the ability to deploy full motion video and VoIP telephony in a mobile wireless environment.
- Wireless broadband access for community anchor institutions and unserved/underserved communities.
- High capacity unlicensed middle mile solution with open access for multiple broadband service providers.
- Flexible design for middle mile access with ability to add capacity and coverage as needed.

Future Network Upgrades:

- BayWeb is based on 3GPP LTE standards and will support further channel profiles of 1.25, 3, 5, 10, and 20 MHz depending on spectrum availability.
- The Public Safety subsystem is scalable to include other 700 MHz broadband spectrum to increase capacity.
- The network can be expanded into adjacent areas.
- The public access subsystem can be extended by adding PMP access point clusters at additional sites as necessary. Capacity can be further improved by placing multiple clusters where required.

Centralized Facilities and Points of Interconnection:

- Alameda County EOC
- NOC and LTE EPC
- LTE RAN sites
- Approximately 200 POP sites

Is the applicant seeking a waiver pursuant to section IX.C of the NOFA so as to sell or lease portions of the award-funded broadband facilities during their life?

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No

I. Project Budget

Project Budget		
	Federal Grant Request	**Match**
Last Mile	0	0
Middle Mile	50,593,551	21,890,086
Total	50,593,551	21,890,086

Project Budget Total: $72,483,637

Match Percent: 30.2%

Projects Outside Recommended Funding Range:

-

Outside Leverage	
Applicant is providing matching funds of at least 20% towards the total eligible project costs?	Yes
Matching cost detail	In-Kind Contribution (a) Name of Contributing Party. Motorola proposes to build and operate the proposed Middle Mile network, which will include (i) a Public Safety subsystem to provide wireless broadband service to public safety and government users based on Long Term Evolution (LTE) standards, and (ii) a Public Access subsystem to increase public broadband Internet access by community anchor institutions and business and residential end users. Motorola will contribute goods and services to the BayWEB project, as described below. (b) Match Value. Motorola's in-kind contributions have a total value of approximately $21.9 million, which represents thirty percent (30%) of the total budget for the BayWEB project.

	(c) Nature of In-Kind Contribution. [redacted] (d) Eligible Cost. The NOFA provides that "eligible costs" are those that are consistent with federal cost principles, are reasonable, allocable, necessary to the project, and conform to GAAP. The NOFA specifies that eligible costs for a Middle Mile project "are generally capital expenses, and not operating expenses" and include those used "[t]o fund the construction or improvement of all facilities required to provide broadband service." All of Motorola's matching costs are capital expenses, which will be used for the construction and improvement of the proposed Middle Mile network, and otherwise meet the applicable requirements of the NOFA. With respect to equipment, the matching costs are set at fair and reasonable sales prices, which are supported by historical sales data. With respect to services, the matching costs are based on the estimated hours necessary to perform the various project tasks and multiplied by the average daily rate for these services, and does not include overhead. (e) Third Party Benefits. The contributor – Motorola – is the applicant, and thus this item does not apply.
Unjust enrichment	The Middle Mile network for which Motorola is seeking a BTOP grant is not receiving, nor has Motorola applied for, any federal support for the non-recurring costs of that network.
Disclosure of federal and/or state funding sources	As disclosed elsewhere in this application, the public-private partnership between Motorola and public safety entities in the Bay Area will be overseen by the Policy Group of the Bay Area Regional

	Interoperability Communications System (BayRICS). BayRICS is an initiative launched by public safety entities in the Bay Area in order to improve interoperable communications throughout the ten counties that comprise the Bay Area Urban Area Security Initiative (Bay Area UASI). The Urban Areas Security Initiative (UASI) is a federal program that was created in 2003 by the U.S. Department of Homeland Security to provide federal grants to support the planning, equipment, training and exercise needs of high-threat, high-density urban areas around the country. UASI grants have been used to increase the ability of first responders in urban areas to respond to all types of emergencies. [redacted] [redacted]
Budget reasonableness	The budget is reasonable for a project of this scope and is sufficient to deploy the network to deliver the proposed services. The project will feature a vibrant Middle Mile network deployed at approximately 200 sites to serve public safety and provide access to broadband providers in a service area within a 10-county region in the Bay Area consisting of approximately 2.5 million households and approximately 180,000 businesses and 28,000 community anchor institutions.

	The cost of the project is approximately $72 million, and Motorola is seeking a federal grant of approximately $50 million. The project budget is reasonable, particularly given the breadth of the proposed network. This network will serve an area that spans 7,368 square miles, with a population of approximately 7 million people, which makes the Bay Area larger than 37 states. The reasonableness of the project budget is underscored in comparison to other similar middle mile networks funded by NTIA in the first round. For example, NTIA awarded the North Florida Broadband Authority (NFPA) a $30 million grant for its project that served an area with 150,000 households, 27,000 businesses, and 1400 anchor institutions. Similarly, NTIA awarded the Open Cape Corporation (Open Cape) a $32 million grant for its project that served an area with 320,000 households, 62,000 businesses and 520 anchor institutions. By comparison, while the amount of the grant requested by Motorola is 40% and 36% larger than the grants awarded to NFBA and Open Cape, the BayWEB project will enable broadband service to a service area having 2 million more households, nearly 100,000 more businesses, and approximately 26,000 more community anchor institutions than both of those projects combined. Motorola has experience designing and deploying similar networks and has first-hand experience of the cost of deployment for such networks. For example, the cost of similar networks in Michigan and Mississippi was approximately $[redacted] per public safety user, $[redacted] per household passed, and $[redacted] per anchor institution passed. By comparison, the cost of this proposed Middle Mile network (based on 50,000 public safety users, 2.5 million households and 28,000 community anchor institutions) is approximately $1,440 per public safety user, $29 per household passed, and $2,600 per anchor institution passed. The Network & Access Equipment and Billing and Operational Support Systems costs consist of switching and transport equipment, antenna systems, and other infrastructure. The costs for these items

	represent fair and reasonable sales prices and are consistent with Motorola's pricing practice and past experience in designing and deploying networks. The Professional Services costs are for engineering, environmental and installation services. These costs are based on the estimated hours necessary to perform the various tasks and multiplied by the average daily rate for each job classification, and do not include overhead.
Demonstration of need	The proposed Middle Mile network will include (i) a Public Safety subsystem to provide wireless broadband service to public safety and government users in the 10-county Bay Area based on fourth generation LTE standards, and (ii) a Public Access subsystem to improve broadband Internet access to the underserved communities of the Bay Area, community anchor institutions, and business and residential end users. This comprehensive, state-of-the art network would not be built without BTOP funds. Motorola has extensive experience in deploying and operating state and region-wide broadband and voice networks, particularly those – like the BayWEB project – that are used to serve the public safety community. Public safety networks are very expensive to deploy given the need for interoperability capabilities and a hardened communications system that will be available in the event of an emergency or catastrophic event. Because of these costs, in Motorola's experience, public safety networks generally require a significant investment from federal or state governments in order to be built. For example, the State of South Carolina helped fund the construction of the South Carolina Palmetto public safety network that Motorola operates, using both federal and state monies. Likewise, the public safety networks in Michigan and Mississippi were funded with revenues from state bonds, although Mississippi also relied on FEMA and other federal grants to construct its network. In the case of BayWEB, there is no reason to believe government funding other than a BTOP grant will be available to complete this

	project. California has a $20 billion budget deficit and has been forced to make dramatic cuts in spending. Jennifer Steinhauer, "Plan to Close California's Budget Deficit," New York Times (Jan. 8, 2010) http://www.nytimes.com/2010/01/09/us/09calif.html. The federal government likewise is financially strapped, with a $431 billion dollar deficit through January 2010. http://www.foxnews.com/politics/2010/02/17/federal-deficit-hits-record-breaking-billion-january/. Other than the funds appropriated in the Recovery Act for BTOP, no federal program currently exists to help defray the cost of deploying a Middle Mile network like BayWEB. Relying upon solely private funds to complete the BayWEB project is unrealistic. [redacted]

Funds to States/Territories

States	Amount of Federal Grant Request
California	50,593,551

Funds to States/Territories Total: $50,593,551

J. Historical Financials

Matching Funds			
	2007	**2008**	**2009**

Revenue	36,662,000,000	30,146,000,000	22,044,000,000
Expenditures	37,175,000,000	32,537,000,000	22,192,000,000
Net Assets	34,812,000,000	27,869,000,000	25,603,000,000
Change in Net Assets from Prior Year	-3,781,000,000	-6,943,000,000	-2,266,000,000
Bond Rating (if applicable)	Fitch BBB, Moody's Baa1, S&P BBB	Fitch BBB-, Moody's Baa3, S&P BB+	Fitch BBB-, Moody's Baa3, S&P BB+

K. Project Readiness

BTOP Organizational Readiness

With unrivaled experience in delivering support to public safety agencies and a reputation as the world leader in wireless technology, Motorola and its partners stand ready to efficiently and effectively deploy, operate, and manage the proposed Middle Mile network. The network design relies entirely on existing towers and facilities, which will facilitate the "shovel ready" installation and deployment of the project infrastructure. Motorola has invaluable insight in deploying and operating a Middle Mile network such as BayWEB, as it has successfully implemented similar projects both in the United States and around the world and has a highly experienced project team to oversee the implementation, management, and operation of this project. Numerous public safety entities and wireless broadband providers have already pledged support to this project, allowing for seamless implementation and rapid utilization once the Middle Mile network is in place.

Motorola is entirely prepared to manage and operate the BayWEB project. Motorola has a holistic approach that provides the highest level of system reliability, performance, and functionality. Motorola's System Support Center (SCC) will provide a combination of both local dedicated resources and remote network support. Once the Middle Mile network is operational, Motorola will incorporate proactive and reactive system maintenance that includes both on-site and SSC support, fault management, and hardware repair. System support is a priority, and Motorola uses a structured call management process, onsite support with centralized back up, and scheduled preventative maintenance to keep the system running smoothly for all users. Proactive and continuous network monitoring using highly sophisticated and reliable tools will

prevent potential problems from arising. The Motorola Maintenance Team is also in place to provide the BayWEB project's users with unsurpassed service and support.

The BayWEB project partners further increase Motorola's high level of organizational readiness. Partner BayRICS Policy Group, comprised of public safety entities across the Bay Area, has a thorough understanding of public safety's unique needs in the Bay Area and will work closely with Motorola in implementing and managing the project. Motorola's wireless broadband provider partners likewise enhance Motorola's organizational readiness. These wireless broadband providers are well established operators that have existing systems in place to handle sales, operational and billing support for customers. These providers also add their knowledge and experience to the project, as they already manage broadband networks of their own. With the support of both its public and private partners, Motorola is more than ready to implement, manage, and operate the proposed Middle Mile network.

Construction and Vendor Contracts

Motorola intends to utilize primarily internal resources in deploying the proposed Middle Mile network rather than relying upon contractors and vendors. Because the network design relies entirely on existing towers and facilities, no construction is expected, which makes the use of contractors and vendors largely unnecessary.

To the extent contractors and vendors are required in the network deployment process – such as assisting in the installation of antennas, transmission lines, base stations, and radio components – Motorola will rely upon its long-established relationships with several authorized Motorola Service Shops (MSS). Many of these MSS contractors in the proposed funded service area have achieved "Premier Service Partner" status, which is a distinction afforded to only those contractors that have satisfied a high level of performance. Motorola Premier Service Partners must meet Motorola's internal Motorola Certified Service Center Accreditation, comply with an internal Environmental Health and Safety Policy, and employ technicians who have achieved rigorous certification and training requirements. Some of Motorola's Premier Service Partners in the Bay Area that could work on this project include Bearcom, Delta, Day Wireless, Telepath, Vision and Red Cloud. In selecting any contractors or vendors, Motorola also will seek to use qualified minority or disadvantaged businesses.

Customer Base

Based on a current list of Motorola customers in the ten counties that comprise the Bay Area – Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma counties – Motorola has approximately 398 existing customers in the proposed funded service area. Of these existing customers, approximately 258 are business customers, and approximately 140 are community anchor institution customers. Of Motorola's 140 existing community anchor institution customers, 128 are public safety entities, one is a university, four are community colleges, and seven are hospitals. Motorola has no existing residential customers and no third party service provider customers.

Licenses, Regulatory Approvals and Agreements

The Public Safety subsystem of the proposed Middle Mile network requires FCC licenses to operate on the 700 MHz band frequencies available for public safety mobile broadband networks. In May 2009, representatives from the BayRICS Policy Group submitted a waiver request for FCC approval to use that spectrum for this purpose. On March 17, 2010, the Chief of the FCC's Public Safety and Homeland Security Bureau indicated that action will be taken on the BayRICS waiver request by mid-summer of 2010. Should FCC action on the waiver petition be delayed, Motorola and the BayRICS Policy Group will secure operating authority through the FCC's special temporary authority process until final regulatory approval has been secured.

No other FCC licenses or regulatory approvals are required in connection with this project. The Public Access subsystem will be implemented using fixed wireless transmitters operating on unlicensed frequencies in the 5 GHz bands, which obviates the need for any licenses.. The microwave backhaul component of the network will be comprised of existing assets that are operational and already licensed by the FCC.

As the BayWEB project relies entirely on existing towers and facilities, the access to which is being provided by partner BayRICS Policy Group, it is not expected that any construction permits or other authorizations will be required in order to deploy the proposed Middle Mile network.

SPIN Number

L. Environmental Questionnaire

Project Description

Motorola and its partners do not expect this project to require any construction-related activities. There is no need to construct new buildings or other structures, modify existing structures, install prefabricated buildings, or construct or install buried cable, monopole towers, or satellite dishes. Rather, the BayWEB project has been designed to leverage existing infrastructure as the most efficient means to address the broadband needs of the proposed funded service area. As part of the project design, Motorola and its partners will utilize existing infrastructure throughout the Bay Area, including approximately 200 existing radio sites and towers as well as equipment rooms, power systems, transport facilities, and antenna line runs that are already in place. The project will require the deployment of equipment such as base stations, antennae systems, access point clusters, cluster management modules, and ancillary network and support equipment. But this deployment will occur without any construction activities. All of the existing sites that Motorola and its partners intend to use as part of this project meet all applicable State and local environmental and land zoning regulations. In addition, during the grant term, Motorola will conduct periodic evaluations to assure continued compliance with all environmental laws and regulations.

Property Changes

Motorola and its partners do not expect this project to require that any property be cleared, excavated, fenced, or otherwise disturbed. Because the BayWEB project will use existing infrastructure – including established radio sites, towers, and equipment rooms – construction activity will be unnecessary. Motorola and its partners intend to utilize approximately 200 existing sites, all of which meet applicable State and local land use and zoning regulations. None of the existing sites is located on public land owned or managed by the federal government.

Buildings

Motorola and its partners do not expect the BayWEB project to require the construction or modification of any buildings or other structures. Such activity will be unnecessary because the equipment necessary to provide broadband service to public safety entities and members of the general public will be deployed utilizing existing infrastructure – including established radio sites, towers, and equipment rooms.

Wetlands

Motorola and its partners do not expect this project to require any construction because the BayWEB project will utilize existing infrastructure, including approximately 200 existing radio sites. In the event that any of these existing sites are located on or near wetlands, the BayWEB project will not affect or have any impact on such areas.

Critical Habitats

As part of the project design, Motorola and its partners will utilize existing infrastructure throughout the Bay Area, including approximately 200 existing radio sites and towers. None of these project sites will directly or indirectly affect any threatened, endangered or candidate species, nor are any of these sites within or near critical habitats. All of the existing sites comply with the California Environmental Quality Act (CEQA), which requires state and local agencies to identify any significant environmental impacts of their actions, including the impact on threatened and endangered species.

Floodplain

Motorola and its partners have designed the BayWEB project to leverage existing infrastructure, including approximately 200 existing radio sites. None of these existing sites is located within a 100 or 500-year floodplain.

Protected Land

There are no cultural resources, including properties listed in or eligible for listing in the National Register of Historic Places, located in or within a one-mile radius of the approximately 200 sites that comprise the BayWEB project. No portion of the project is located on tribal lands. The proposed project is not located on, within, or adjacent to a National Historic Landmark. The BayWEB project will not impact, use or alter any building or structure, including any buildings or structures constructed more than 50 years ago.

Coastal Area

The BayWEB project is not within the boundaries of a coastal zone management area (CZMA).

Brownfield

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Motorola and its partners have designed the BayWEB project to leverage existing infrastructure, including approximately 200 existing radio sites. None of these existing sites is located within a brownfield site.

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Uploads

The following pages contain the following uploads provided by the applicant:

Upload Name	File Name	Uploaded By	Uploaded Date
Service Offerings and Competitor Data	Service Offerings and Competitor Data Attachment.XLS	Phipps, Derek	03/26/2010
Network Diagram	Network Diagram Attachment.pdf	Phipps, Derek	03/26/2010
Build Out Timeline	Project Plan and Buildout Timeline Attachment.pdf	Phipps, Derek	03/26/2010
List of Community Anchors and Points of Interest	Anchor Detail and POI Attachment.XLS	Phipps, Derek	03/26/2010
Management Team Resumes and Organization Chart	Management Team Resumes and Organization Chart.pdf	Phipps, Derek	03/25/2010
Government and Key Partnerships	Government and Key Partnerships Attachment.pdf	Phipps, Derek	03/26/2010
Historical Financial Statements	Attachment Historical Financial Statements (2009).pdf	Phipps, Derek	03/18/2010

Historical Financial Statements	Attachment Historical Financial Statements (2008).pdf	Phipps, Derek	03/18/2010
Budget Narrative	Budget Narrative Attachment.pdf	Phipps, Derek	03/26/2010
Detailed Budget	Detailed Budget Attachment.XLS	Phipps, Derek	03/26/2010
Pro-forma Forecast	Pro Forma Financial Statement Attachment.XLS	Phipps, Derek	03/26/2010
Subscriber Estimates	Subscriber Estimates Attachment.XLS	Phipps, Derek	03/26/2010
Dashboard Metrics	Key Metrics Dashboard.pdf	Phipps, Derek	03/26/2010
Service Area Data	Service Area Data Attachment.xls	Phipps, Derek	03/25/2010
Waivers	Waiver Attachment.pdf	Phipps, Derek	03/25/2010
Network Maps	Network Maps Attachment.pdf	Phipps, Derek	03/26/2010
BTOP Certifications	BTOP Certification.pdf	Phipps, Derek	03/24/2010

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SF-424 C and D	SF424C and D Forms.pdf	Phipps, Derek	03/26/2010
Supplemental Information	Supplemental Attachment - Evidence of Political Support.pdf	Phipps, Derek	03/26/2010
Supplemental Information	Supplemental Attachment - Letters of Support.pdf	Phipps, Derek	03/25/2010
Supplemental Information	Supplemental Attachment - Verizon Wireless Letter of Support.pdf	Phipps, Derek	03/25/2010
Supplemental Information	Public Private Partnership Agreement.pdf	Phipps, Derek	03/25/2010