State of Hawaii

Detailed Project Plan

Broadband Data and Development Grant

April 26, 2011 – Final Recipient Project Plan and Budget

Summary of Activities: Federal Drawdown and Match

1.1 Approved Projects

1.1.1 *Broadband Mapping, Data Collection, Verification and Display (Initial and Amended)*

Pursuant to Award 15-50-M09057, the State of Hawaii's Department of Commerce and Consumer Affairs ("DCCA") was granted **$1,449,940** in federal funds for broadband data collection and mapping activities over a two-year period. DCCA's currently funded activities under its mapping project over a two-year period include: collecting broadband data from at least nine (9) major Providers in the State of Hawaii; documenting and migrating the Provider and Community Anchor Institution ("CAI") raw data into the approved FCC data model; mapping the results, performing spatial and demographic analysis of broadband coverage and availability by census block; developing a baseline CAI database and verifying broadband services at these locations; purchasing computer equipment and software supporting the program objectives; employing crowdsourcing tools to improve accuracy of the database; performing quality control and quality assurance on the data sets; and developing an Internet-based GIS application that has been tested and deployed for consumers to use. The application allows a consumer to enter an address into a web form, and returns a map of broadband availability and related information, aggregated at the census-block level. Data updates will be submitted on a semi-annual basis to the NTIA.

On September 28, 2010, DCCA was granted an additional **$1,700,000** in federal funds to continue its broadband data collection and mapping activities over a three-year period. The supplemental funds will be used for project activities such as a detailed data gathering methodology of repeated data updating; integration and verification of accuracy; defined processes for data integration; verification methodologies including geo-locational referencing, crowdsourcing and establishing a provider feedback loop; public relations and outreach; future leading practice implementation; and address file development.

As of December 31, 2010, the amount of federal broadband Mapping funds remaining is **$2,420,947**.

1.1.2 *Broadband Planning (Initial)*

Pursuant to Award 15-50-M09057, the State of Hawaii's Department of Commerce and Consumer Affairs ("DCCA") was granted **$500,000** in federal funds for broadband adoption activities over a five-year period. DCCA's currently funded activities under its Initial Planning project over a five-year period include forming an Initial Planning Committee to oversee the development of a 5-Year Strategic Master Plan for broadband adoption and advancement as Critical Infrastructure. The Plan will be referenced by governmental and grant funding agencies for future Capital Improvement Projects and other policy implications. The Plan will be finalized within thirty (30) months from the grant award date.

As of December 31, 2010, the amount of initial Planning award funds remaining is **$497,863**. Funds were expended on a Planning consultant to begin detailed research and gather documentation outlined in the Initial Planning work plan.

The remaining project Planning funds are expressly not being added to the subsequent State Capacity Building Project and the Technical Assistance Project. The initial Planning project will run its course independently resulting in the creation of a 5-Year Strategic Master Plan. This Strategic Master Plan will then guide the activities of the subsequent projects which begin in Year 2, Quarter 4.

1.1.3   State Capacity Building (Amended)

Pursuant to Award 15-50-M09057, the State of Hawaii's Department of Commerce and Consumer Affairs ("DCCA") was granted **$450,000** in federal funds for State Capacity Building activities over a four-year period. The State Broadband Capacity Building Project will strive to resolve identified gaps in broadband service throughout the State and reduce barriers to broadband adoption. A Broadband Committee will be established under the Project to develop a State project plan for expanding broadband and information technology services throughout Hawaii. Once the State project plan is complete, the Broadband Committee will seek to prioritize and guide the implementation and adoption of broadband as Critical Infrastructure in strategic locations. A Work Group will also be established under the State Broadband Capacity Building Project to develop procedures for streamlined permitting functions applicable to the development of broadband services and to implement policies to increase the sharing of infrastructure used to deploy broadband services.

1.1.4   Technical Assistance (Amended)

Pursuant to Award 15-50-M09057, the State of Hawaii's Department of Commerce and Consumer Affairs ("DCCA") was granted **$250,000** in federal funds for Technical Assistance activities over a four-year period. The Technical Assistance Project seeks to implement programs that will increase access to broadband services and digital literacy through the creation of local technology planning teams and computer ownership and Internet access programs. It is the aim of the Technical Assistance Project to implement policy at the State and local levels that will support a minimum broadband technology requirement in all building/community development projects and that will enhance computer/Internet access, disaster management capabilities and emergency services/communications with the public.

The amount of funds awarded pursuant to Award 15-50-M09057 and the amount of federal funds requested under these projects totals **$4,349,940.**

1.2 Quarterly Drawdown and Match Amounts

Total Federal and Match Amounts **(Initial and Amended Funds)**	
Total Federal Funds	$4,349,940
Total Match Amount	$1,087,485
Year 1	
Total Federal Funds Expended	$731,130
Total Match Amount Used	$182,783 of $487,485 (Initial)
Year 2	
Year 2, Quarter 1 (Jan 1- Mar 31, 2011)	
Estimated Federal Drawdown	$400,000
Estimated Match	$100,000 of $487,485 (Initial)
Description of Match	Wireless e911 Address Database
Year 2, Quarter 2 (Apr 1- Jun 30, 2011)	
Estimated Federal Drawdown	$300,000
Estimated Match	$75,000 of $487,485 (Initial)
Description of Match	Wireless e911 Address Database
Year 2, Quarter 3 (Jul 1- Sept 30, 2011)	
Estimated Federal Drawdown	$300,000
Estimated Match	$75,000 of $487,485 (Initial)
Description of Match	Wireless e911 Address Database
Year 2, Quarter 4 (Oct 1- Dec 31, 2011)	
Estimated Federal Drawdown	$218,810
Estimated Match	$54,702 of $487,485 (Initial)
Description of Match	Wireless e911 Address Database
Year 3	
Year 3, Quarter 1 (Jan 1- Mar 31, 2012)	
Estimated Federal Drawdown	$279,000
Estimated Match	$69,750 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 3, Quarter 2 (Apr 1- Jun 30, 2012)	
Estimated Federal Drawdown	$279,000
Estimated Match	$69,750 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 3, Quarter 3 (Jul 1- Sept 30, 2012)	
Estimated Federal Drawdown	$279,000
Estimated Match	$69,750 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 3, Quarter 4 (Oct 1- Dec 31, 2012)	
Estimated Federal Drawdown	$279,000
Estimated Match	$69,750 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies

Year 4	
Year 4, Quarter 1 (Jan 1- Mar 31, 2013)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 4, Quarter 2 (Apr 1- Jun 30, 2013)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 4, Quarter 3 (Jul 1- Sept 30, 2013)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 4, Quarter 4 (Oct 1- Dec 31, 2013)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 5	
Year 5, Quarter 1 (Jan 1- Mar 31, 2014)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 5, Quarter 2 (Apr 1- Jun 30, 2014)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 5, Quarter 3 (Jul 1- Sept 30, 2014)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies
Year 5, Quarter 4 (Oct 1- Dec 31, 2014)	
Estimated Federal Drawdown	$160,500
Estimated Match	$40,125 of $600,000 (Amended)
Description of Match	Personnel Salaries, Fringe, Travel, Supplies

2. Initial Award (Mapping and Planning): Summary of Use

2.1 Summary of Use - $500,000 Planning

DCCA will utilize the significant progress made and information contained in the Hawaii Broadband Task Force Final Report dated December 2008 ("Final Report"), commissioned and paid for by the Hawaii State Legislature, to guide its Initial Planning activities under this project and to complete the project goals of identifying barriers to the adoption of broadband and information technology ("IT") services. DCCA's project will be led by an Initial Planning Committee that will be charged with identifying barriers to the adoption of broadband and IT services, creating and facilitating local technology planning teams, and establishing computer ownership and Internet access programs. To this end, the Initial Planning Committee will oversee the development of a 5-Year Strategic Master Plan for broadband adoption and advancement as Critical Infrastructure, which will be referenced by governmental and grant funding agencies for future Capital Improvement Projects and other policy implications. The Strategic Plan will be written and finalized within thirty (30) months from the grant award date.

The Initial Planning Committee will leverage data findings developed pursuant to the broadband Mapping grant and will add granularity to existing recommendations listed in the Final Report. From the Final Report, the following high-level recommendations shall be taken into consideration:

1. *Establish a Forward-Looking Vision to Make Hawaii Globally Competitive*
2. *Create a One-Stop Broadband Advancement Authority*
3. *Welcome Trans-Pacific Submarine Fiber to Hawaii*
4. *Stimulate Demand for Broadband*

The Initial Planning Committee will seek to identify, prioritize, and guide the implementation and adoption of broadband as Critical Infrastructure in strategic locations that will allow the State to connect gaps in existing communications infrastructure, thereby increasing broadband services for the public, broadband adoption rates, higher-quality education, communication, disaster management, and emergency response services.

The Initial Planning Committee will likely be comprised of public/private agency membership from the following sectors in Hawaii: Policy, Technology Implementation, Communications, Research, Education, Emergency Services, Disaster Management, and Public Outreach. The Initial Planning Committee will meet regularly to review information provided and will offer expert guidance and recommendations on fulfilling the scope of the 5-Year Strategic Master Plan. The Hawaii Broadband Task Force has drawn certain conclusions related to broadband availability and adoption in the State. It is the aim of the Initial Planning Committee to fine tune and address these conclusions.

As of December 31, 2010, **$497,863** remained in the project budget. Funds were expended on a Planning consultant to begin detailed research and gather documentation outlined in the Initial Planning work plan.

2.2 Planning Project Area Alignment

The remaining Planning project funds are expressly not being added to the subsequent State Capacity Building Project and the Technical Assistance Project. The initial Planning project will run its course independently resulting in the creation of a 5-Year Strategic Master Plan. This Strategic Master Plan will then guide the activities of the subsequent projects.

The resulting 5-Year Strategic Master Plan will be utilized in the subsequent State Capacity Building Project and the Technical Assistance Project wherein the State will execute the strategic plan recommendations from a capital improvement project, state and local policy, and community outreach perspective.

It is anticipated in the following detailed project plan that Initial Planning activities will conclude in Year 2, Quarter 4; and that the State Capacity Building Project and Technical Assistance Project will subsequently begin in Year 2, Quarter 4. Therefore, funds budgeted in Year 2 for the State Capacity Building Project and Technical Assistance Project will likely impact Year 3 since expenditures are recorded on a cash basis. This has been reflected in the "Quarterly Drawdown and Match Amounts" in Table 1.2 above. This is also why no dollar amount is shown in Year 2 in the "Project Budget, Milestone, and Proposed Timeline" in Table 3.1 below.

2.3 Summary of Changes

Data Gathering Methodology (Project Years 2-5)

Repeated Data Updating:
- Maintain a semi-annual process of data collection, integration and verification

- Identify and obtain data from small Wireless Service Providers ("WSPs")

- Increase the granularity of data obtained from Providers, working toward address-level detail

- Increase accuracy of CAI database to include private establishments offering fee or non-fee based public use of Internet and wireless hotspots (*i.e.* SBUX, hotels, restaurants, cafés, commuter routes, shopping malls, kiosks, etc.)

- Augment pricing information to accommodate multiple tiers of service, equipment rebates/costs, incentives/offers, and directory of social media mobile application availability
    - Information mobility has become an increasing focus and trend for broadband adoption

- Utilize mobile applications for speed and information gathering and verification

Process for Data Integration (Project Years 2-5)

- Continue to work with file geodatabase format from FCC
- Keep abreast of changes and updates to the FCC data model and implement the model in the State
- Update Providers with current data formats and map projections so that they may update their own systems accordingly and/or create a roadmap for synchronization of geospatial data

- Provide secure Internet access to broadband maps and data to Providers so that they may visualize and update their information as appropriate

Verification Methodology (Project Years 2-5)

Geo-Locational Referencing:

- Increase Provider feedback frequency, and work in partnership to generally increase the accuracy of broadband data, infrastructure locations, and speeds over a four-year period

- Continue to verify addresses and broadband service locations against TIGER, NAVTEQ, InfoUSA, DCCA business registration database, County Tax Map Key (TMK) database, County Kiva Permitting Database, and orthoimagery: IKONOS, QuickBird, LiDAR, USGS Quads, Digital Globe DOQQs, and Dasymetric Population Layers developed by PDC (Census 2000, Census 2010 to be developed when data available)

- New address points will be added to the database as they are discovered through a quality control process. The project team has targeted a 95% complete and accurate address database by the end of 2011. The goal is to increase the completeness and accuracy of the address database by 1-2% per year through 2014.

Crowdsourcing:

- Increase accuracy utilizing crowdsourcing technologies:
  - Intra-state crowdsourcing (local hosting of customized Ookla tools)
  - Inter-state crowdsourcing (cloud services hosting of customized Ookla tools)
  - FCC crowdsourcing data integration (FCC Ookla and M-Labs tools and data output)

Provider Feedback Loop:

- Give Providers access to statewide address data to improve the efficiency of the verification process and to create a built-in feedback loop augmenting the accuracy of their customer records:
  - Access to statewide addresses is highly valued by Providers and may result in Providers updating their own databases, and, in turn, providing more accurate coverage maps
- Build and foster relationships with Providers to enhance partnership in creating a more accurate database
- Reach out on a continuing basis to (an undetermined number of) small WSPs so that their coverage areas are reflected in the State map
- Continue to formalize a feedback loop with all Providers in order to: (i) provide feedback to Providers regarding the depictions of their availability; and (ii) discuss conflicting information that DCCA may receive from crowdsourcing data, publicly available data, or other information

Public Relations / Outreach:

- Maintain and enhance the State Broadband website (http://www.hibroadbandmap.org) to include information and outreach on all activities related to the program:

- o Integrate social media to create a public feedback loop (public to Awardee, Awardee to Providers, and Awardee back to the public) and enable access to the already "connected" communities (Facebook, Twitter, LinkedIn, Social Bookmarking, Blogs)
- o Incentivize speed tests using social media marketing techniques and develop State press releases
- o Develop website content and links to other broadband related online communities in Hawaii and Small Business Development Technical Assistance programs
- o Create website content and links for consumers and potential partners/grant applicants to the National Broadband Map (http://www.broadband.gov) and NTIA programs (http://www2.ntia.doc.gov) & (http://www.broadbandusa.gov)

Future Leading Practice Implementation:

- Continue metadata and process documentation
- Publish the metadata, process documentation, and outreach materials on the State Broadband website (http://www.hibroadbandmap.org)

Address File Development (Project Years 2-5)

Within its Wireless Enhanced 911 Program ("Wireless e911"), the State funded the creation of a statewide premise-based address-point database (which includes urban and rural addresses) that will be used specifically for broadband service and availability geocoding purposes under the State Broadband Data and Development Program ("SBDD"). The Wireless e911 address database is the most accurate and complete address database in the State of Hawaii (the quality of which far exceeds what is commercially available), and the data are mandated to be continuously maintained/updated (under a funding mechanism and agreement with various counties). Fortunately, data maintenance/update activities and schedules directly coincide with and support the five-year duration of SBDD. DCCA and its team will continue to work with the e911 GIS address-point and street-centerlines databases to improve its geocoding accuracy as well as the accuracy of broadband services and availability using available commercial sources defined in the Verification Methodology above.

The project team has updated data from the Wireless e911 address database to create an independent address database for the Broadband project, which has been enhanced using available commercial sources defined in the Verification Methodology described above in this Section 2.3. New address points will be added to the database as they are discovered through a quality control process. The project team has targeted a 95% complete and accurate address database by the end of 2011. The goal is to increase the completeness and accuracy of the address database by 1-2% per year through 2014. The Broadband project owns and maintains the address files and shares them with all State entities. The files are stored in a GIS shapefile format and can be easily updated and shared with State entities. Private and public/non-profit entities will be granted access to the address file through an ArcGIS Server Geocoding Map Service available on the Broadband project's website. There are no licensing or access restrictions on the Geocoding Map Service. There are no paid project partners involved with development of the address database.

2.4 Statewide Data Users

Current Entities:

- Office of the Governor of the State of Hawaii

- Hawaii State Legislature

- Hawaii Department of Commerce and Consumer Affairs (DCCA)

- Hawaii Department of Business, Economic Development and Tourism (DBEDT)

- Hawaii Department of Accounting and General Services (DAGS)

- Hawaii Department of Education (DOE)

- University of Hawaii (UH)

- Hawaii State Civil Defense (HSCD)

- Hawaiian Telcom

- Oceanic/Time Warner Cable

- Mobi PCS

- Sandwich Isles Communications

- TW Telecom

- Hawaii Public Radio

Future Entities:

- County of Kauai (incl. Civil Defense, Police, Fire, Planning)

- City and County of Honolulu (incl. Civil Defense, Police, Fire, Planning)

- County of Maui (incl. Civil Defense, Police, Fire, Planning)

- County of Hawaii (incl. Civil Defense, Police, Fire, Planning)

- Small Wireless Service Providers (WSPs)

3. **Projects Approved in the Amended Award: Creating a Detailed Project Plan, Timeline, and Estimated Budget**

   3.1 **Project Budget, Milestone, and Proposed Timeline**

      3.1.1 **State Broadband Capacity Building**

Projects Approved in the Amended Award - Budget Year Two	
Project Name	State Broadband Capacity Building
Estimated Start and End Date (Year and Quarter)	Start: Year 2, Quarter 4 End: Year 5, Quarter 4
Total Federal Award for this Project	$450,000
Year 2	
Yr 2 Estimated Budget Drawdown Amount	$0
Year 2, Quarter 1 (Jan 1 – Mar 31, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
N/A (Project Begins in Year 2, Quarter 4)	-Awaiting Output of the Initial Planning Project: Draft 5-Year Strategic Master Plan.

Applicant Matching Funds Activity	*-DCCA to Maintain Communication with Initial Planning Committee Members and other Project Stakeholders.*
	
	• *Initial Planning Committee is likely to be comprised of same participants in Act199 Broadband Advisory Committee (BAC).*
	  o *Four (4) Meetings were held with BAC in 2010*
	  o *Four (4) Agendas created for each of those meetings*
	• *Hold administrative meeting of DCCA New Team and Project Stakeholders*
	  o *Create Meeting Summary*
	• *Hold Meeting of Act199 Broadband Advisory Committee (Mar)*
	  o *Create Agenda for Meeting*
	
	-DCCA to Work on Legislation Supporting Streamlined Permitting.
	
	• *Develop Recommendations and Draft Provisions of Legislation for Streamlined Permitting Bill*
	• *Research and Prepare Analysis of Legislation and Testify Before Legislative Committees on Same*

	-DCCA to Hire Technical Staff Supporting Broadband in Hawaii. • *Develop Position Descriptions for Three (3) Broadband Positions in DCCA:* o *Program Specialist 1, Program Specialist 2, & Program Specialist 3*
Year 2, Quarter 2 (Apr 1 – Jun 30, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
N/A (Project Begins in Year 2, Quarter 4)	-Awaiting Output of the Initial Planning Project: Draft 5-Year Strategic Master Plan.

Applicant Matching Funds Activity	*-DCCA to Maintain Communication with Initial Planning Committee Members and other Project Stakeholders.*
	
	• *Hold Meeting of Act199 Broadband Advisory Committee (Apr)*
	    o *Create Agenda for Meeting*
	
	-DCCA to Work on Legislation Supporting Streamlined Permitting.
	
	• *Recommend and Implement Changes to Bill*
	• *Work with Interested Stakeholders to Reach Consensus on Possible Amendments to Draft Legislation*
	• *Prepare Advisory Papers and Assist Conference Committee on Aligning House and Senate Versions of Adopted Bill*
	• *Continue Working with Stakeholders to Generate Further Support for Legislation*
	
	-DCCA to Hire Technical Staff Supporting Broadband in Hawaii.
	
	• *Hire One (1) Broadband Position in DCCA:*
	    o *Program Specialist 1*

Year 2, Quarter 3 (Jul 1 – Sept 30, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
N/A (Project Begins in Year 2, Quarter 4)	-Awaiting Output of the Initial Planning Project: Draft 5-Year Strategic Master Plan.

Applicant Matching Funds Activity	*-DCCA to Maintain Communication with Initial Planning Committee Members and other Project Stakeholders.*
	
	• *Hold Kick-Off Meeting with Initial Planning Committee*
	    o *Create Agenda for Meeting*
	    o *Create Meeting Summary*

	-DCCA to Work on Legislation Supporting Streamlined Permitting. • *Advise Governor's Office on Merit of Signing Legislation if Passed by Legislature* • *Initiate Implementation of Legislation* • *If Bill Not Passed, Work to Identify Other Means to Accomplish the Identified Goals and Document in an Internal Report* *-DCCA to Hire Technical Staff Supporting Broadband in Hawaii.* • *Hire Two (2) Broadband Positions in DCCA:* o *Program Specialist 2 and Program Specialist 3*
Year 2, Quarter 4 (Oct 1 – Dec 31, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
Provide Output of Initial Planning Project: 5-Year Strategic Master Plan to Initial Planning Committee Members	-Review Draft of the 5-Year Strategic Master Plan. • *Send First Draft Plan to Initial Planning Committee Members for Preliminary Review* • *Document Individual Comments, Questions and Recommendations* • *Send Compiled List of Comments, Questions and Recommendations to All Members*

Host a Meeting of Initial Planning Committee Members	-Convene Initial Planning Committee to Discuss and Provide Feedback.
	
	• *Hold Meeting with Initial Planning Committee*
	   o *Create Agenda for Meeting*
	   o *Create Meeting Summary*
	
	-Complete Second Draft Plan based on Initial Planning Committee Feedback.
	
	• *Incorporate Initial Planning Committee Feedback into Document*
	• *Complete Second Draft of 5-Year Strategic Master Plan*

Establish Membership for the State Broadband Capacity Building Committee and Work Group for 2012-2013	-Identify and Invite Members. • *Define Charter* • *Draft Letters of Invitation* • *Transmit Letters of Invitation to Prospective Members*

	-Form State Broadband Capacity Building Committee and Work Group for 2012-2013. • *Obtain Commitments from Prospective Members* • *Create Official Roster of Members* • *Publish Roster on Website* • *Publish Meeting Schedule on Website*

Year 3	
Yr 3 Estimated Budget Drawdown Amount	$250,000
Year 3, Quarter 1 (Jan 1 – Mar 31, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Finalize the 5-Year Strategic Master Plan for Broadband	-Incorporate Initial Planning Committee Feedback into Final Plan. • *Send Second Draft Plan to Initial Planning Committee Members for Final Review* • *Document Individual Comments, Questions and Recommendations* • *Incorporate Initial Planning Committee Feedback into Document* • *Finalize and Publish FINAL 5-Year Strategic Master Plan*
Host Final Meeting of Initial Planning Committee Members	-Convene Initial Planning Committee to Present Final 5-Year Strategic Master Plan for Broadband. • *Create Meeting Agenda* • *Present Final Plan in PowerPoint Presentation* • *Close-out Initial Planning Committee* • *Post Final 5-Year Strategic Master Plan on Website*
Attend Legislative Session for 2012 Supporting Broadband Bills	-Develop a more streamlined permit approval process that reduces the time and cost of infrastructure deployment, to be created jointly by disparate permitting agencies, stakeholders, and other interested parties. • *Implement 2011 Permit Streamlining Bill or Other Streamlining Efforts if Bill is not Passed* • *Document Status of State Permitting Process* • *Provide Assessment Report* -Increase sharing of the infrastructure used to deploy broadband to speed up implementation, reduce costs to Providers, reduce underlying costs to Providers through incentives rather than eminent domain procedures, ease

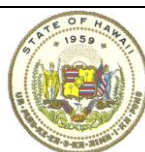|	
	deployment of broadband, and ease entry into a competitive broadband marketplace. • *Implement 2011 Permit Streamlining Bill or Other Streamlining Efforts if Bill is not Passed* • *Document Status of State Infrastructure* • *Provide Assessment Report* -Deliver Annual Broadband Progress Report. • *Final Report for Legislative Briefing* • *Post Report on Website*

Develop State Broadband Capacity Building Project Plan for 2012-2013	-Identify and prioritize outstanding barriers to the adoption of broadband service and information technology services.
	
	 • *Document State Barriers*
	 • *Provide Assessment Report as Part of State Project Plan*
	
	 -Define methods to increase availability of advanced broadband communications service on a competitive basis to reduce gaps, increase service penetration, and improve service to all persons in Hawaii.
	
	 • *Document State Methods and Specific Recommendations, including:*
	     o *Consideration of Other States/Tribal Nations and Federal Level*
	     o *Definition of Best Practices involving telework and affordable pricing*
	     o *Documentation of recommendations for programs to establish affordable service*
	 • *Provide Recommendations Report as Part of State Project Plan*
	
	 -Identify project budget resources.
	
	 • *Document Budget for State Fiscal Year*
	 • *Provide Budget Report as Part of State Project Plan*

Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss 5-Year Strategic Master Plan for Broadband. • *Create Meeting Agenda (State)* • *Create Meeting Summary (State)*

	-Discuss Data Collection Activities and Outreach initiatives. • *Present Current Data Maps and Findings* • *Capture Feedback and Recommendations* • *Incorporate into Meeting Summary* -Identify measurements that ensure access to broadband communications for all households, businesses, and organizations throughout Hawaii by 2014 at speeds and prices comparable to the average speeds and prices available in the top three performing countries in the world. • *Review Assessments, Recommendations, and Budget Reports in State Project Plan* • *Incorporate Findings into Meeting Summary* • *Capture Action Items from Meeting and Distribute to State and Local Teams*
Year 3, Quarter 2 (Apr 1 – Jun 30, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2012-2013	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2012-2013. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*
Year 3, Quarter 3 (Jul 1 – Sept 30, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2012-2013	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2012-2013. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties*

	• *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*
Provide Detailed Update to NTIA on Accomplishments and Updated Action Plan via the Year 3, Quarter 3 Performance Progress Report (PPR)	-Provide NTIA with Detailed PPR. • *Create Year 3, Quarter 3 PPR Detailing Accomplishments and Remaining Tasks to Implement Streamlining Permitting Effort* • *Update Action Plan in Year 3, Quarter 3 PPR* • *Submit Year 3, Quarter 3 PPR to NTIA*
Year 3, Quarter 4 (Oct 1 –Dec 31, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2012-2013	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2012-2013. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Summary* • *Provide Updated Maps* -Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Prepare Annual Progress Report for Legislature	-Compile Annual Progress Reports from State and Local agencies into an Executive and Legislative briefing for 2012 and upcoming activities for 2013.
	
	• *Create Annual Progress Report, which includes:*
	  ○ *Consideration of Other States/Tribal Nations and Federal Level*
	  ○ *Definition of Best Practices involving telework and affordable pricing*
	  ○ *Documentation of recommendations for programs to establish affordable service*
	• *Distribute to State and Local Teams*

Year 4	
Yr 4 Estimated Budget Drawdown Amount	$100,000
Year 4, Quarter 1 (Jan 1 – Mar 31, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Attend Legislative Session for 2013 Supporting Broadband Bills	-Develop a more streamlined permit approval process that reduces the time and cost of infrastructure deployment, to be created jointly by disparate permitting agencies, stakeholders, and other interested parties. • *Implement 2011 Permit Streamlining Bill or Other Streamlining Efforts if Bill is not Passed* • *Implement Activities Based on Updated Action Plan in the Year 3, Quarter 3 PPR* • *Document Status of State Permitting Process* • *Provide State Assessment Report* -Increase sharing of the infrastructure used to deploy broadband to speed up implementation, reduce costs to Providers, reduce underlying costs to Providers through incentives rather than eminent domain procedures, ease deployment of broadband, and ease entry into a competitive broadband marketplace. • *Implement 2011 Permit Streamlining Bill or Other Streamlining Efforts if Bill is not Passed* • *Implement Activities Based on Updated Action Plan in the Year 3, Quarter 3 PPR* • *Document Status of State Infrastructure* • *Provide State Assessment Report* -Deliver Annual Broadband Progress Report. • *Final Report for Legislative Briefing*

	• *Post Report on Website*
Execute State Broadband Capacity Building Project Plan for 2012-2013	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2012-2013. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*
Year 4, Quarter 2 (Apr 1 – Jun 30, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute on State Broadband Capacity Building Project Plan for 2012-2013	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2012-2013. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Year 4, Quarter 3 (Jul 1 – Sept 30, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2012-2013	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2012-2013. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*
Provide Detailed Update to NTIA on Accomplishments and Updated Action Plan via the Year 4, Quarter 3 Performance Progress Report (PPR)	-Provide NTIA with Detailed PPR. • *Create Year 4, Quarter 3 PPR Detailing Accomplishments and Remaining Tasks to Implement Streamlining Permitting Effort* • *Update Action Plan in Year 4, Quarter 3 PPR* • *Submit Year 4, Quarter 3 PPR to NTIA*
Year 4, Quarter 4 (Oct 1 – Dec 31, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2012-2013	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2012-2013. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps*

	-Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Prepare Annual Progress Report for Legislature	-Compile Annual Progress Reports from State and Local agencies into an Executive and Legislative briefing for 2013 and upcoming activities for 2014.
	
	• *Create Annual Progress Report, which includes:*
	   ○ *Consideration of Other States/Tribal Nations and Federal Level*
	   ○ *Definition of Best Practices involving telework and affordable pricing*
	   ○ *Documentation of recommendations for programs to establish affordable service*
	• *Distribute to State and Local Teams*

Establish Membership for the State Broadband Capacity Building Committee and Work Group for 2014	-Identify and Invite Members. • *Define Updated Charter* • *Draft Letters of Invitation* • *Transmit Letters of Invitation to Prospective Members* -Form State Broadband Capacity Building Committee and Work Group for 2014. • *Obtain Commitments from Prospective Members* • *Create Official Roster of Members* • *Publish Roster on Website* • *Publish Meeting Schedule on Website*

Year 5	
Yr 5 Estimated Budget Drawdown Amount	$100,000
Year 5, Quarter 1 (Jan 1 – Mar 31, 2014)	
Primary Milestone(s)	**Corresponding Primary Activities**
Attend Legislative Session for 2014 Supporting Broadband Bills	-Develop a more streamlined permit approval process that reduces the time and cost of infrastructure deployment, to be created jointly by disparate permitting agencies, stakeholders, and other interested parties. • *Investigate further potential initiatives to streamline broadband buildout permit process* • *Implement Activities Based on Updated Action Plan in the Year 4, Quarter 3 PPR*

	• *Document Status of State Permitting Process* • *Provide Assessment Report* -Increase sharing of the infrastructure used to deploy broadband to speed up implementation, reduce costs to Providers, reduce underlying costs to Providers through incentives rather than eminent domain procedures, ease deployment of broadband, and ease entry into a competitive broadband marketplace. • *Investigate further potential initiatives to streamline broadband buildout permit process* • *Implement Activities Based on Updated Action Plan in the Year 4, Quarter 3 PPR* • *Document Status of State Infrastructure* • *Provide Assessment Report* -Deliver Annual Broadband Progress Report. • *Final Report for Legislative Briefing* • *Post Report on Website*

Develop State Broadband Capacity Building Project Plan for 2014	-Identify and prioritize outstanding barriers to the adoption of broadband service and information technology services.
	• *Document State Barriers*
	• *Provide Assessment Report as Part of State Project Plan*
	
	-Define methods to increase availability of advanced broadband communications service on a competitive basis to reduce gaps, increase service penetration, and improve service to all persons in Hawaii.
	• *Document State Methods and Specific Recommendations, including:*
	  o *Consideration of Other States/Tribal Nations and Federal Level*
	  o *Definition of Best Practices involving telework and affordable pricing*
	  o *Documentation of recommendations for programs to establish affordable service*
	• *Provide Recommendations Report as Part of State Project Plan*
	
	-Identify project budget resources.
	• *Document Budget for State Fiscal Year*
	• *Provide Budget Report as Part of State Project Plan*

Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss and Update 5-Year Strategic Master Plan for Broadband. • *Create Meeting Agenda (State)* • *Create Meeting Summary (State)* • *Create Appendix to Strategic Master Plan from State Feedback* -Discuss Data Collection Activities and Outreach initiatives. • *Provide Updated Maps* -Identify measurements that ensure access to broadband communications for all households, businesses, and organizations throughout Hawaii by 2014 at speeds and prices comparable to the average speeds and prices available in the top three performing countries in the world. • *Review Assessments, Recommendations, and Budget Reports in State Project Plan* • *Incorporate Findings into Meeting Summary* • *Capture Action Items from Meeting and Distribute to State and Local Teams*
Year 5, Quarter 2 (Apr 1 – Jun 30, 2014)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2014	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2014. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Capacity Building Broadband Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on State Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Year 5, Quarter 3 (Jul 1 – Sept 30, 2014)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2014	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2014. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*
Provide Detailed Update to NTIA on Accomplishments and Updated Action Plan via the Year 5, Quarter 3 Performance Progress Report (PPR)	-Provide NTIA with Detailed PPR. • *Create Year 5, Quarter 3 PPR Detailing Accomplishments and Remaining Tasks to Implement Streamlining Permitting Effort* • *Update Action Plan in Year 5, Quarter 3 PPR* • *Submit Year 5, Quarter 3 PPR to NTIA*
Year 5, Quarter 4 (Oct 1 – Dec 31, 2014)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute State Broadband Capacity Building Project Plan for 2014	-Work with State Departments and project leads responsible for implementing the State Broadband Capacity Building Project Plan for 2014. • *Distribute State Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in State Monthly Status Reports* • *Prepare Quarterly State Progress Report*
Host Quarterly Meeting for State Broadband Capacity Building Committee and Work Group	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps*

	-Discuss and Capture Progress on State Broadband Capacity Building Project Plan and Work Group activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Prepare Annual Progress Report for Legislature	-Compile Annual Progress Reports from State and Local agencies into an Executive and Legislative briefing for 2014.
	
	• *Create Annual Progress Report, which includes:*
	
	   o *Consideration of Other States/Tribal Nations and Federal Level*
	
	   o *Definition of Best Practices involving telework and affordable pricing*
	
	   o *Documentation of recommendations for programs to establish affordable service*
	
	• *Distribute to State and Local Teams*

3.1.2   Technical Assistance

Projects Approved in the Amended Award - Budget Year Two	
Project Name	Technical Assistance
Estimated Start and End Date (Year and Quarter)	Start: Year 2, Quarter 4 End: Year 5, Quarter 4
Total Federal Award for this Project	$250,000
Year 2	
Yr 2 Estimated Budget Drawdown Amount	$0
Year 2, Quarter 1 (Jan 1 – Mar 31, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
N/A (Project Begins in Year 2, Quarter 4)	-Awaiting Output of the Initial Planning Project: Draft 5-Year Strategic Master Plan.
Applicant Matching Funds Activity	*-DCCA to Maintain Communication with Initial Planning Committee Members and other Project Stakeholders.* • *Initial Planning Committee is likely to be comprised of same participants in Act199 Broadband Advisory Committee (BAC).* o *Four (4) Meetings were held with BAC in 2010* o *Four (4) Agendas created for each of those meetings* • *Hold administrative meeting of DCCA New Team and Project Stakeholders* o *Create Meeting Summary* • *Hold Meeting of Act199 Broadband Advisory Committee (Mar)* o *Create Agenda for Meeting* *-DCCA to Hire Technical Staff Supporting Broadband in Hawaii.* • *Develop Position Descriptions for Three (3) Broadband Positions in DCCA:* o *Program Specialist 1, Program Specialist 2, & Program Specialist 3*
Year 2, Quarter 2 (Apr 1 – Jun 30, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
N/A (Project Begins in Year 2, Quarter 4)	-Awaiting Output of the Initial Planning Project: Draft 5-Year Strategic Master Plan.
Applicant Matching Funds Activity	*-DCCA to Maintain Communication with Initial Planning Committee Members and other Project Stakeholders.*

	• *Hold Meeting of Act199 Broadband Advisory Committee (Apr)*
	     o *Create Agenda for Meeting*
	
	-DCCA to Hire Technical Staff Supporting Broadband in Hawaii.
	• *Hire One (1) Broadband Position in DCCA:*
	     o *Program Specialist 1*

Year 2, Quarter 3 (Jul 1 – Sept 30, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
N/A (Project Begins in Year 2, Quarter 4)	-Awaiting Output of the Initial Planning Project: Draft 5-Year Strategic Master Plan.

Applicant Matching Funds Activity	*-DCCA to Maintain Communication with Initial Planning Committee Members and other Project Stakeholders.*
	• *Hold Kick-Off Meeting with Initial Planning Committee*
	     o *Create Agenda for Meeting*
	     o *Create Meeting Summary*
	
	-DCCA to Hire Technical Staff Supporting Broadband in Hawaii.
	• *Hire Two (2) Broadband Positions in DCCA:*
	     o *Program Specialist 2 and Program Specialist 3*

Year 2, Quarter 4 (Oct 1 – Dec 31, 2011)	
Primary Milestone(s)	**Corresponding Primary Activities**
Establish Membership for the Technical Assistance Local Technology Planning Teams for 2012-2013	-Identify and Invite Members. • *Define Charter* • *Draft Letters of Invitation* • *Transmit Letters of Invitation to Prospective Members* -Form Technical Assistance Local Technology Planning Teams for 2012-2013. • *Obtain Commitments from Prospective Members* • *Create Official Roster of Members* • *Publish Roster on Website* • *Publish Meeting Schedule on Website*

Year 3	
Yr 3 Estimated Budget Drawdown Amount	$130,000

Year 3, Quarter 1 (Jan 1 – Mar 31, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss 5-Year Strategic Master Plan for Broadband. • *Create Meeting Agenda (Local)* • *Create Meeting Summary (Local)* -Discuss Data Collection Activities and Outreach initiatives. • *Present Current Data Maps and Findings* • *Capture Feedback and Recommendations* • *Incorporate into Meeting Summary* -Define methods to increase flexible, timely and responsible access to public rights-of-way and public facilities for broadband service Providers. • *Document Local Methods* • *Incorporate Findings into Meeting Summary* • *Capture Action Items from Meeting and Distribute to State and Local Teams*

Year 3, Quarter 2 (Apr 1 – Jun 30, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Develop Technical Assistance Local Technology Project Plan for 2012-2013	-Identify and prioritize outstanding barriers to the adoption of broadband service and information technology services. • *Document Local Barriers* • *Provide Assessment Report as Part of Local Project Plan* -Define methods to increase availability of advanced broadband communications service on a competitive basis to reduce gaps, increase service penetration, and improve service to all persons in Hawaii. • *Document Local Methods and Specific Recommendations* • *Provide Recommendations Report as Part of Local Project Plan* -Define programs to increase broadband availability to low-income and other disadvantaged groups and to improve digital literacy skills and small business broadband training. • *Document Recommended Local Programs* • *Provide Recommendations Report as Part of Local Project Plan*

	• *Create Priority Task List as Part of Local Project Plan*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Year 3, Quarter 3 (Jul 1 – Sept 30, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Technology Project Plan for 2012-2013	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2012-2013. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Minutes* • *Distribute to State and Local Teams*

Year 3, Quarter 4 (Oct 1 –Dec 31, 2012)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Technology Project Plan for 2012-2013	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2012-2013. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*

Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Year 4	
Yr 4 Estimated Budget Drawdown Amount	$60,000

Year 4, Quarter 1 (Jan 1 – Mar 31, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Technology Project Plan for 2012-2013	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2012-2013. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Year 4, Quarter 2 (Apr 1 – Jun 30, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Technology Project Plan for 2012-2013	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2012-2013. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*

	-Discuss Data Collection Activities and Outreach initiatives.
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	• *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Year 4, Quarter 3 (Jul 1 – Sept 30, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Technology Project Plan for 2012-2013	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2012-2013. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

Year 4, Quarter 4 (Oct 1 – Dec 31, 2013)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Technology Project Plan for 2012-2013	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2012-2013. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda*

	• *Provide Updated Maps*
	-Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities.
	• *Create Meeting Summary*
	• *Distribute to State and Local Teams*
	-Identify and Invite Members.
	• *Define Updated Charter*
	• *Draft Letters of Invitation*
	• *Transmit Letters of Invitation to Prospective Members*
Establish Membership for the Technical Assistance Local Technology Planning Teams for 2014	-Form Technical Assistance Local Technology Planning Teams for 2014.
	• *Obtain Commitments from Prospective Members*
	• *Create Official Roster of Members*
	• *Publish Roster on Website*
	• *Publish Meeting Schedule on Website*

Year 5	
Yr 5 Estimated Budget Drawdown Amount	$60,000
Year 5, Quarter 1 (Jan 1 – Mar 31, 2014)	
Primary Milestone(s)	**Corresponding Primary Activities**
Develop Technical Assistance Local Technology Project Plan for 2014	-Identify and prioritize outstanding barriers to the adoption of broadband service and information technology services.
	• *Document Local Barriers*
	• *Provide Assessment Report as Part of Local Project Plan*
	-Define methods to increase availability of advanced broadband communications service on a competitive basis to reduce gaps, increase service penetration, and improve service to all persons in Hawaii.
	• *Document Local Methods and Specific Recommendations*
	• *Provide Recommendations Report as Part of Local Project Plan*
	-Define programs to increase broadband availability to low-income and other disadvantaged groups and to improve digital literacy skills and small business broadband training.
	• *Document Recommended Local Programs*

	• *Provide Recommendations Report as Part of Local Project Plan* • *Create Priority Task List as Part of Local Project Plan*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss and Update 5-Year Strategic Master Plan for Broadband. • *Create Meeting Agenda (Local)* • *Create Meeting Summary (Local)* • *Create Appendix to Strategic Master Plan from Local Feedback* -Discuss Data Collection Activities and Outreach initiatives. • *Provide Updated Maps* -Define methods to increase flexible, timely and responsible access to public rights-of-way and public facilities for broadband service Providers. • *Document Local Methods* • *Incorporate Findings into Meeting Summary* • *Capture Action Items from Meeting and Distribute to State and Local Teams*

Year 5, Quarter 2 (Apr 1 – Jun 30, 2014)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Project Plan for 2014	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2014. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*
Host Quarterly Meeting for Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

| Year 5, Quarter 3 (Jul 1 – Sept 30, 2014) ||
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Technology Project Plan for 2014	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2014. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*
Year 5, Quarter 4 (Oct 1 – Dec 31, 2014)	
Primary Milestone(s)	**Corresponding Primary Activities**
Execute Technical Assistance Local Project Plan for 2014	-Work with Technical Assistance Local Technology Planning Teams and project leads responsible for implementing the Technical Assistance Local Technology Project Plan for 2014. • *Distribute Local Project Quarterly Tasks and Timelines to Responsible Parties* • *Measure for Progress in Local Monthly Status Reports* • *Prepare Quarterly Local Progress Report*
Host Quarterly Meeting for Technical Assistance Local Technology Planning Teams	-Discuss Data Collection Activities and Outreach initiatives. • *Create Meeting Agenda* • *Provide Updated Maps* -Discuss and Capture Progress on Technical Assistance Local Technology Plans and activities. • *Create Meeting Summary* • *Distribute to State and Local Teams*

3.2 Annual Project Outcomes – State Capacity Building Project and Technical Assistance Project

2011

Initial Planning Project

- First and Second Draft 5-Year Strategic Master Plan (output of the Initial Planning Project)

- Convene Initial Planning Committee to Review the 5-Year Strategic Master Plan Resulting in Two (2) Strategic Workshop Meetings

Applicant Matching Funds Activity

- DCCA to Hire Three (3) Technical Staff Positions Supporting Broadband in Hawaii

    o Programs Specialist 1, Program Specialist 2, and Program Specialist 3

- DCCA to Support at Least Two (2) Meetings of the Act 199 Broadband Advisory Committee (BAC) and Legislation for 2012 Session Supporting Streamlined Permit Processing

State Broadband Capacity Building Project

- Establish Membership for the State Broadband Capacity Building Committee and Work Group for 2012-2013

    o Includes Charter

Technical Assistance Project

- Establish Membership for the Technical Assistance Local Technology Planning Teams for 2012-2013

    o Includes Charter

2012

Initial Planning Project

- Final 5-Year Strategic Master Plan (output of the Initial Planning Project)

State Broadband Capacity Building Project

- Develop State Broadband Capacity Building Project Plan for 2012-2013, which includes:

    o Documentation of State Barriers to Adoption, Methods and Specific Recommendations to Increase Availability and Reduce Infrastructure Gaps, and Budget for 2012-2013

    o Consideration of Other States/Tribal Nations and Federal Level

    o Definition of Best Practices Involving Telework and Affordable Pricing

    o Documentation of Recommendations for Programs to Establish Affordable Service
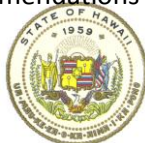
- o Implementation of at Least One (1) Legislative Bill Streamlining Broadband Buildout Permit Process and Incentivizing Trans-Pacific and Inter-island Fiber Infrastructure Buildout per Year

- Hold Four (4) Meetings of the State Broadband Capacity Building Committee and Work Group, Resulting in Four (4) Quarterly Reports with Action Items, Specific State Tasks and Timelines, and Monthly Status Reports

Technical Assistance Project

- Develop Technical Assistance Local Technology Project Plan for 2012-2013, which includes:

  - o Documentation of Local Barriers to Adoption, Methods and Specific Recommendations to Increase Availability and Reduce Infrastructure Gaps, and Recommended Local TA Programs to Implement for 2012-2013

  - o Implementation of at Least One (1) TA Recommended Program per County per Year

  - o Implementation of at Least One (1) Local Ordinance Streamlining Broadband Buildout Permit Process or Increasing Broadband for Emergency Services and Rural Telemedicine Services per County per Year

- Hold Four (4) Meetings for the Technical Assistance Local Technology Planning Teams, Resulting in Four (4) Quarterly Reports with Action Items, Specific Local Tasks and Timelines, and Monthly Status Reports

2013

State Broadband Capacity Building Project

- Deliver Annual Progress Report to Legislature for 2012 and Planned Activities for 2013

- Hold Four (4) Meetings of the State Broadband Capacity Building Committee and Work Group, Resulting in Four (4) Quarterly Reports with Action Items, Specific State Tasks and Timelines, and Monthly Status Reports

- Establish Membership for the State Capacity Building Broadband Committee and Work Group for 2014

  - o Includes Updated Charter

Technical Assistance Project

- Hold Four (4) Meetings for the Technical Assistance Local Technology Planning Teams, Resulting in Four (4) Quarterly Reports with Action Items, Specific Local Tasks and Timelines, and Monthly Status Reports

- Establish Membership for the Technical Assistance Local Technology Planning Teams for 2014

  - o Includes Updated Charter

2014

State Broadband Capacity Building Project

- Deliver Annual Progress Report to Legislature for 2013 and Planned Activities for 2014

- Update Final 5-Year Strategic Master Plan (output of the Initial Planning Project)

- Develop State Broadband Capacity Building Project Plan for 2014, which includes:

  o Updated Documentation of State Barriers to Adoption, Methods and Specific Recommendations to Increase Availability and Reduce Infrastructure Gaps, and Budget for 2014

  o Updated Consideration of Other States/Tribal Nations and Federal Level

  o Updated Definition of Best Practices involving telework and affordable pricing

  o Documentation of Updated Recommendations for Programs to Establish Affordable Service

  o Assessment of Goal to Implement at Least One (1) Legislative Bill Streamlining Broadband Buildout Permit Process and Incentivizing Trans-Pacific and Inter-island Fiber Infrastructure Buildout in 2014

- Hold Four (4) Meetings of the State Broadband Capacity Building Committee and Work Group, Resulting in Four (4) Quarterly Reports with Action Items, Specific State Tasks and Timelines, and Monthly Status Reports

Technical Assistance Project

- Develop Technical Assistance Local Technology Project Plan for 2014, which includes:

  o Updated Documentation of Local Barriers to Adoption, Methods and Specific Recommendations to Increase Availability and Reduce Infrastructure Gaps, and Recommended Local TA Programs to Implement in 2014

  o Assessment of Goal to Implement at Least One (1) TA Recommended Program per County in 2014

  o Assessment of Goal to Implement at Least One (1) Local Ordinance Streamlining Broadband Buildout Permit Process or Increasing Broadband for Emergency Services and Rural Telemedicine Services per County in 2014

- Hold Four (4) Meetings for the Technical Assistance Local Technology Planning Teams, Resulting in Four (4) Quarterly Reports with Action Items, Specific Local Tasks and Timelines, and Monthly Status Reports

3.3 Personnel Salary Disclosure

No SBDD award funds will be used by DCCA (Prime Recipient) to pay $100,000 or more of an individual's salary and fringe benefits.

At least $100,000 of the grant award will be used to pay the salary and fringe benefits of one (1) UH/PDC (Sub-Recipient):

- Keone Kali, UH/PDC Technology Advisor and **Broadband Project Director**.

- This employee's salary is shared across **ALL** of the aforementioned projects in Section 1.1 Approved Projects.

- As a Sub-Recipient under ARRA Section 1512 Indication of Reporting Applicability, reporting of this employee's compensation is not required. However, under the Special Award Conditions, Section 21, "Awardee must provide to NTIA for review and approval job descriptions for new employees expected to be paid $100,000 per year or more before Federal funding supporting these positions is released." Although this employee is not a new employee, a summary of the job description for this existing employee is set forth below.

- The **Broadband Project Director** manages the State of Hawaii Broadband Data and Development Project on behalf of the Hawaii Department of Commerce and Consumer Affairs which involves stakeholders composed of private industry, elected officials, state and local agencies, higher education, emergency management, and public safety. The Broadband Project Director is responsible for ensuring that the technical project plan/charter is fully developed and administered, the project strategy is developed and executed, and the delivery milestones are properly executed and administered. The Broadband Project Director further ensures communication between all stakeholders, actively manages technical tasks through their completion, and implements measures for the satisfaction of all deliverables on the project. The Broadband Project Director serves under the budgeted position classifications of Technical Project Manager and Broadband/IT Advisor, is a subject matter expert in these areas, and is the primary contact for the Broadband Data and Development Project on behalf of the Hawaii Department of Commerce and Consumer Affairs.   The Broadband Project Director interacts regularly with state government leaders at the cabinet level and division administrators as well as federal program directors to ensure program mission and reporting objectives are met.

- Required qualifications are contained within the attached resume.

PACIFIC DISASTER CENTER

<u>Professional Personnel Profile</u>

Keone Kali
Technology Advisor and Broadband Project Director
University of Hawaii: Pacific Disaster Center

Keone Kali
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U.S. Citizen

Qualifications and Experience

Mr. Kali has a wide-ranging technical background in large-scale information system implementation across multiple jurisdictions, is highly experienced in contract management, negotiation and strategy, possesses advanced geospatial system development and management experience, and has built systems that support State/Federal OES programs with real-time information in a multi-jurisdictional collaborative management model.

Mr. Kali applies information technologies in the areas of:

- Broadband Strategy and Development
- IT Gap Analysis, Strategic Roadmap Development, and Policy Administration
- Humanitarian Assistance, Disaster Management, and Hazard Mitigation
- Risk and Vulnerability Assessment, Risk Reduction
- Security and Overall Sustainability within the Asia/Pacific Region

Mr. Kali is the Project Director for the State of Hawaii Broadband Data and Development Grant project funded by the NTIA which seeks to increase critical communications infrastructure, broadband service capability and availability within the state.

Mr. Kali served as the project lead on the AHA Centre ICT Gap Analysis Project. In this capacity, he performed an ICT assessment for the ACDM Subcommittee of functional capabilities, minimum requirements, and developed a roadmap and phased implementation strategy for the interim, provisional, and fully-operational AHA Centre inclusive of leveraging existing ASEAN DISCNet technologies: OSADI (an interoperable disaster inventory management system) and OSA-Map Atlas (a web-enabled GIS analysis and reporting tool).

He also served as the project lead on the IP-CVR Online Collaboration System utilizing the latest web-based tools, social media and networking, content management systems and knowledge sharing platforms to support the International Advisory Panel (IAP) and its constituents/working groups in addressing the problem of climate change, variability and risk reduction.

Formerly the Chief Information Officer (CIO) for the City of Beverly Hills, California, Mr. Kali has extensive experience in government contracting, MIS and GIS at the city and county levels dating back to 1994, and expanded this scope to federal and state markets in 2008. As CIO, in collaboration with City departments, he authored, and successfully implemented, a comprehensive five year IT Master Plan that completely revamped and revolutionized City Operations both organizationally and functionally.

Mr. Kali managed key strategic initiatives for the City of Beverly Hills involving technology, communications, customer service excellence, physical infrastructure improvements, new revenue generation opportunities, and various other public programs including the provision of internal support structures to allow City operations to address deferred capital infrastructure maintenance, general plan activities, public safety and community improvements. Mr. Kali was a senior executive with direct operational responsibilities of $14 million with an additional Capital Improvement Project allocation of $15 million per year while building and managing a highly complex and state-of-the-art IT department with multiple divisions, 22 FTE's, an internal user base of over 1,000, and an external support base of 35,000 residents. Mr. Kali created and managed 5-

year project specific capital of over $91 million and all projects were completed in alignment with no less than 8 of the Top 10 City Council priorities per fiscal year. His projects won several state and national awards for innovation and excellence in government. Upon leaving this post Mr. Kali was honored by the Beverly Hills City Council with a Proclamation for distinguished service, leadership and vision.

A registered Principle Investigator with NSF, SBIR, and STTR programs and formerly with CCR, Mr. Kali has worked under grant programs implemented in the private utility and public sectors that were in some cases governed by academic institutions. Mr. Kali has also been a professional management, technology and R&D consultant to multiple private companies.

Countries of Work Experience

United States   Japan   Singapore   Indonesia

Language Skills and Foreign Travel

English: Excellent, native speaker

Spanish: Speak–Good   Read–Fair   Write–Fair

Travel: Canada, Mexico, Argentina, Uruguay, French Polynesia, United Kingdom, France, Belgium, The Netherlands, Germany, Liechtenstein, Austria, Switzerland, Italy, Monaco, Japan, Singapore, Indonesia

Education

University of California, Los Angeles   BA   1994   Geography (emphasis in Computer Science)

Other Training

2005   FEMA: Incident Command Systems (ICS/NIMS) Training Series: 100, 700

2005   Advanced CPR and First Aid

1994-2007   Numerous Management, Planning, Technical Courses and Seminars involving Executive Management, Organizational Development, Succession Planning, Strategy, Cross-Jurisdictional Project Management, Multidiscipline and Multicultural Team Management, and Excellence in Management of Information Systems (details on request).

Computer and IT Skills

Systems and software required for:

IT Policy Creation and Administration; Overall IT Strategy, System Architecture, Planning and Execution; System Development; High-Availability, On-Demand, and Emergency Operations Systems; Information Assurance & Optimization; Custom Software & Solutions Architecture; Systems and Database Analysis, Design, Implementation & Maintenance; State-of-the-Art Geographic Information Systems (GIS); Security and Access Control Systems; Large Scale Network and Information Sharing; and various other COTS/FOSS Software and Operating Systems (details on request).

MS Office Suite

Select Honors

Individual

2007   Proclamation for Distinguished Service: City Council, City of Beverly Hills, California.

2006   Harvard Kennedy School of Government: Top Innovator Award.

Organizational Leadership

2008   Cover Story in Security Technology and Design Magazine: IP Security 90210 Style.
The City of Beverly Hills' networked camera and video management system was the subject of the cover article in the November 2008 issue of this well respected trade journal.

2007   Excellence in Information Systems Award from the Municipal Information Systems Association of California (MISAC).

2007   Los Angeles Area Emmy Award - Best Public Service Announcement.

2005   Government Computer News: City of Beverly Hills, Online Business Center (OBC).

2005   Helen Putnam Award for Excellence in Government: City of Beverly Hills, California (Online Business Center - OBC).

2005   Los Angeles Area Emmy Award - Outstanding Cable Program.

2004   Los Angeles Area Emmy Nominee - Outstanding Cable Program.

2003   InfoWorld Magazine: Top 100 for 99.999% Runtime Data Center.

Employment History

03/09–Present	Technology Advisor	Pacific Disaster Center Managed by University of Hawaii
01/07–03/09	Professional Management, Technology, and R&D Consultant	Keone Kali, LLC Paia, Hawaii
03/01–01/07	Chief Information Officer (CIO) and Dir. of Information Technology	City of Beverly Hills Beverly Hills, California
06/99–03/01	Principal Consultant	Thundergate Multimedia Los Angeles, California
11/98–06/99	Senior Consultant	Psomas Los Angeles, California
04/96–11/98	Geographic Information Systems (GIS) Manager	City of Beverly Hills Beverly Hills, California
05/94–04/96	Senior GIS Analyst: Geographic Information and Analysis Systems (GIAS)	Southern California Edison (GIAS) Managed by Natural History Museum of Los Angeles County

Select Publications and Presentations

AHA Centre Information Communication Technology (ICT) Gap Analysis, co-author, a report on technology gap analysis for the ASEAN Humanitarian Center, Pacific Disaster Center, Kihei, Hawaii, and ASEAN Committee for Disaster Management, Jakarta, Indonesia, August 2009.

Latest Technologies for Local Government, an audio career coaching program for municipal finance professionals discussing the leading new technologies, future developments, ways to manage technology, and helpful resources to keep up to date, CSMFO Podcast cosponsored by the California chapter of the International City/County Management Association (Cal-ICMA), May 2006.

Closing Key-Note speaker at the Association of Storage Networking Professionals (ASNP) World Storage Conference, Long Beach, California, June 2004.

3.4 Sub-Recipient and Vendor Activities

This information, as well as copies of the agreements, has already been provided to the Program Office and Grants Office, and is summarized below:

- The initial MOU between *Hawaii DCCA* (Awardee/Recipient) and *University of Hawaii/Pacific Disaster Center* (Sub-Recipient/primary contractor); fully executed in an amount not to exceed $1,949,940. An Amendment No. 1 to this MOU is pending for the Supplemental Award which will bring the not-to-exceed amount to **$4,349,940**.

- The initial contract with *BroadMap LLC* (project partner/vendor), and the contract Amendment No. 1; fully executed in an amount not to exceed **$250,549**.

- A contract with *Bump Networks, LLC* (vendor), our Web Application Design, Crowdsourcing, and Application Integration Consultant; fully executed in an amount not to exceed **$242,375**.

- A contract with *RHD Consulting, LLC* (project partner/vendor), our Planning Consultant; fully executed in an amount not to exceed **$75,000**.

- A contract with *Referentia Systems, Inc.* (project partner/vendor), our Software/Security Consultant; fully executed in an amount not to exceed **$124,973**.

3.5 Project Partners *(already provided to program office)*

Current Partners

- **Hawaii Department of Commerce and Consumer Affairs (DCCA)** is the Awardee and is the Lead State Agency responsible for Project Oversight. DCCA is responsible for promoting and encouraging telework and broadband in the State of Hawaii, and for ensuring that the citizens of Hawaii have access to high-speed broadband services at affordable prices. DCCA is also charged with implementing recommendations from the Hawaii Broadband Task Force.

- **University of Hawaii/Pacific Disaster Center (UH/PDC)** is the primary team member responsible for executing all aspects of the Initial and Amended project scope. UH/PDC is collecting all data from Broadband Providers and is providing analysis support to the Planning Committee. UH/PDC provides Technical Project Management, System Administration, Data Processing/Software Engineering, Planning Analysis, GIS Analysis, Database Administration, Broadband/IT Advisory, and Technical Assistance Advisory.

- **BroadMap, LLC** was responsible for executing the first part of the Mapping project scope. BroadMap has expertise in broadband mapping and data modeling, data collection/processing, verification, and data updates. They and their national coalition (including New America Foundation and Google) also have access to a variety of national, interstate, and intrastate broadband data that are important to the Program. BroadMap provides Software Processing, GIS Database Modeling, and Verification.

- **Bump Networks, LLC** is a Hawaii-based multimedia software development company with expertise in Web 2.0, social media, marketing, and high-availability Software-as-a-Service (SaaS) and Data-as-a-Service (DaaS) application management. Bump Networks provides Web Application Design, Content Management Systems, Application Integration, Crowdsourcing Tools, Multimedia Campaigns and Outreach, and Mobile Platform Development.

- **RHD Consulting, LLC**, led by Mr. Bob Doeringer, provided consultancy to the State's Broadband Task Force. The firm will act as a State broadband subject matter expert and advisor to the Planning project. RHD Consulting will also perform the general quality control over the project and deliverables. RHD Consulting provides State Broadband Planning Consulting.

- **Referentia Systems Inc.** is a Native Hawaiian-Owned Small (8A) technology firm with expertise in network engineering and system architecture and can provide data guards and security solutions as required to control access to sensitive data. Referentia is a premier provider of data-guard solutions to the U.S. Department of Defense (DoD) for securing access to highly sensitive data. Referentia provides Software/Security for broadband GIS layers and map services so that Providers may access their confidential data securely.

- **Akimeka LLC** is a Native Hawaiian and Service Disabled Veteran Owned Small Business with expertise in enterprise architecture of large systems and can provide system architecture and information assurance services. Akimeka provides Enterprise Software Design and GIS Application Development; however, they have not yet been engaged to work on this project.

Proposed Partners

- None at this time.