

additional collection efforts, it provides an opportunity to simultaneously survey consumers concerning other aspects of the service they receive.

The collection and layering on of consumer experience data can be done in two basic ways. First, and most cost-effectively, it can be done in volume online by “crowd-sourcing” data from automated ‘speed tests’ that individual users can run in a minute or two, and receive immediate feedback for their own use as an incentive. Viral outreach efforts can encourage tens of thousands of users to ‘take the test,’ receive a ‘report card,’ and as a by-product add to the automated aggregation of consumer experience data. Second, resources permitting, surveys of small businesses and residential and community anchor tenant broadband users can collect richer profiles of actual user experience and preferences.

Crowd-sourcing – One Economy will be deploying tools online that consumers will use to measure and report actual measurements of the speeds (upstream and downstream), as well as (simultaneously) other diagnostic data on the quality of their broadband connections and actual user experience, including latency (packet delay), jitter (variability in latency), and routing or packet degradation discrepancies. As large numbers of broadband users access these tools for their own benefit, their data will be ‘crowd sourced’ (aggregated) into the state map, improving its overall quality at extremely low cost.

Through One Economy’s platform, consumers and researchers will be provided with real-time feedback on the speed and quality of their Internet connections through its partnership with M-Lab.¹ M-Lab was founded by New America’s Open Technology Institute (OTI), Google Inc., the PlanetLab Consortium at Princeton University, and other academic researchers to enhance Internet transparency and to sustain a healthy, innovative Internet.

M-Lab provides the consumer with immediate feedback, provides Internet researchers with aggregate data to discern patterns and, in the context of broadband mapping, M-Lab can add geographically specific queries in order to generate views and reports that reveal the actual user experience in discrete local areas. The national scope of M-Lab’s data on broadband connection speed and quality will promote the comparability of the State of Mississippi’s data with data gathered from other states. Google and other companies contribute data hosting capacity. All data collected via M-Lab is openly available to the academic researchers.

Accessibility

One Economy has developed and operates several easy-to-use, web-based GIS applications, allowing public users to find, visualize and assess geospatial information. Additionally, One Economy has extensive experience in serving geospatial data to its users and clients via

¹ See <http://measurementlab.net> OTI, in collaboration with the Knight Center on Digital Excellence, conducts community needs assessments and advises on strategies to address the needs of unserved / under-served areas.



standards-based web services, including the Open Geospatial Consortium's (OGC) Web Map Service (WMS) and Web Feature Service (WFS) widely-adopted standards. The WMS and WFS services can be easily "consumed" within open-source and commercial-off-the-shelf GIS applications such as ArcGIS and MapInfo. Finally, One Economy hosts and operates a large network of distributed data and data services, supported by "metadata" search and discovery services, all aimed at supporting a variety of access, publishing, and data discovery methods.

These capabilities can be easily customized to support the information access requirements of this project. The Broadband Portal web application would allow public citizens, agencies and businesses to view the availability of wireline and wireless broadband services for their place of residence, business, education, etc. via simple-to-navigate tools.

We will be the launching of the Broadband Stimulus Mapping Portal for the State of Mississippi. This portal will contain key content for the State including:

- ❖ A Message From The Mississippi Broadband Task Force
- ❖ Key Web Links
- ❖ Related News Item Links
- ❖ A Broadband Blog
- ❖ Broadband Project Portal
- ❖ Broadband Serviceability Search
- ❖ Maps and Reports
- ❖ Contact Us Feature including an online form, 800 Number and contact email

The Broadband Serviceability User interface is intuitive and very easy for the user to navigate. Utilizing mapping display technology from Google, the consumer, business or lawmaker will find their experience to be fast and complete. The tool will have advanced functionality built-in to the solution including:

- Address Look-up Tool to identify location and options for service
- Full zoom and pan
- Up to date digital mapping of the State of Mississippi
- Full incorporation of Anchor Institution and Points of Interest Data
- Satellite and Aerial Imagery
- Elevation and Topographical Mapping

The web portal functionality also includes functionality that will assist the State of Mississippi with it BTOP and BIP initiatives. The Broadband Project Portal includes functionality that creates a means to solicit, receive and evaluate proposals focused on the following areas:

- ❖ Build-out of the Broadband Infrastructure in Unserved and Underserved Areas.
- ❖ Development of Programs To Increase Adoption of Broadband Services
- ❖ Development of Applications and Programs Aimed At Key Areas of Interest (Community Centers, Law Enforcement Agencies etc)

The Broadband Project Portal section within the Broadband Stimulus Mapping Portal will require registration. This will allow the State of Mississippi and One Economy to monitor and approved entries but it also allows us to build a database of potential partners who have



interest in soliciting NTIA Broadband Grants. We believe that this tool will be incredibly beneficial in helping the State of Mississippi accumulate, vet and process Broadband providers.

Security and Confidentiality

To address data *Security and Confidentiality*, One Economy will be using the security, access-control, authentication, and authorization services built into many of the applications described above. Further, public access will be provided via a map and data server hosted outside of the One Economy firewall. The data accessed by the public, either from the Atlas or one of the public web services (i.e., WMS or WFS); will be stored within the Public Access database. This database will be populated via an automated process, including appropriate filters, to prevent any company proprietary data from being transferred from the Production data base to the Public Access database. Thus, even if security were breached on the public access server, it would not contain any of the proprietary data.

In order to support flexible and secured information exchange to and from the non-public data repositories that will constitute the backbone of the system, One Economy will deploy data guard appliances comparable to what currently is in use by various US Government agencies to protect classified information. These guards will provide the data streams' obfuscation, conditioning, and pedigree labeling mechanisms to ensure data control policies compliance between and among data domains. The guards will include a graphical user interface to enable the implementation of data control policies into business rules to be applied on the data streams, thus providing a way for non-technical users to easily configure the data-level modifications required to ensure security, confidentiality, and information pedigree.

During this phase, and before any data services are released, requirements for data security and confidentiality (as stated by the service providers) will undergo a detailed review in order to develop the architecture and deploy the necessary data guards.

All data found within One Economy's processing environment falls into one of the following categories:

Public Company Data – Public company data is defined as data that any entity, either internal or external to our company, can access. The disclosure, use or destruction of Public company data will have limited or no adverse affects on our company nor carry any significant liability.
Proprietary Company Data – Proprietary company data is any information that derives its economic value from not being publicly disclosed. It includes information that our company is under legal or contractual obligation to protect. The value of proprietary company information to our company would be destroyed or diminished if such information were disclosed to others. Most our company sensitive information should fall into this category. Proprietary company information may be copied and distributed within our company only to authorized users. Proprietary company information disclosed to authorized external users must be done so under a non-disclosure agreement.

Confidential Company Data – Confidential Company Data is information that is not to be publicly disclosed, regardless of its economic value. The disclosure, use, or destruction of



Confidential Company Data can have adverse affects on our company and possibly carry significant civil, fiscal, or criminal liability. This designation is used much less frequently. It is used for highly sensitive information whose access is restricted to selected, authorized employees. The recipients of confidential information have an obligation not to reveal the contents to another individual unless that person has a valid need to know for the information. Company confidential information must not be copied without authorization from the identified owner.

Confidential Customer Data – Confidential customer data is defined as data that only authorized internal our company entities or specific authorized external entities can access. The disclosure, use, or destruction of confidential customer data can have adverse affects on our company and their relationship with their customers, and possibly carry significant liability for both. Confidential customer data is entrusted to, may transit, or is stored by our company (and others) over which they have custodial responsibility but do not have ownership.

Project Feasibility

To ensure feasibility, the Team prepared a budget based on a detailed analysis of the resources required to accomplish the tasks over the performance period, considering timeline delivery requirements, and the 20 percent non-federal matching contributions. A summary of the budget is presented here. This section also provides an overview of the budgeting process, explanation of how the financial figures were determined, and how the allocation of resources were provisioned to assure project feasibility.

Category	Year 1	Years 2 thru 5	Total	Match
Personnel	\$ 0	\$ 0	\$ 0	\$ 193,000
Fringe	0	0	143,291	-
Contractual	1,299,685	697,500	1,997,185	-
Travel	1,000	2,750	48,750	-
Equipment	178,780	0	330,846	-
Other	-	-	-	450,000
Sub-total Direct	\$ 1,479,465	\$ 700,250	\$ 2,023,746	\$ 643,000
Indirect	0	0	0	-
Mapping Budget	\$ 1,479,465	\$ 700,250	\$ 2,179,715	-
Planning Budget	-	-	\$ 500,000	-
Total	-	-	\$ 2,679,715	\$ 643,000
Match %			76.01%	23.99%



Table 1 - Budget Summary

Applicant's Capabilities, Capacities, Knowledge, and Experience were described in terms of the One Economy's collective capabilities, reach, and the depth of the technical bench in partnering institutions. Additionally, to assure feasibility, One Economy prepared the budget based on detail analysis of the resources required to accomplish the tasks over the performance period, considering timeline delivery requirements, and the 20 percent non-federal matching contributions. To ensure meeting timelines for the deliverables, significant resources will be allocated during the first four quarters of this project.

Budgeting Process and Narrative

Budget determination was done using a detailed resource planning process. A detailed spreadsheet accompanying this application supports how the overall estimates were derived. This section provides a summary of the process and the overall structure of the budget.

Human Resources Cost: To begin with, technical requirements to accomplish each task were examined by OG and One Economy. Each expert then provided a detailed Cost Structure necessary to accomplish the tasks (details provided under the Personnel section) and any inter-dependencies among the tasks.

Next, the information from all experts were compiled into a comprehensive plan, and cross referenced again for inter-dependencies. As a result, a detailed comprehensive Cost Structure was developed.

The comprehensive Cost Structure was then checked against the timeline constraints imposed on the deliverables to identify the optimal number of parallel resources required to meet the deadlines. As a result, an overall Project Plan was developed to identify the project's **Critical Path** and derive concurrent human resources needed to meet the project milestones. These resources were then mapped to the level of skills required for each task and to the cost for each skill set (including sub-contract personnel cost) to devise the budget for the human resources. A Fringe Benefit rate of 30% was used, where applicable, to include healthcare, social security, workers' compensation, vacation, and retirement.

Hardware and Software Cost: Estimating computer hardware and software cost was performed using skilled and experienced GIS experts, and Network and Security Engineers. One Economy examined the data requirements (expected volume, update frequency, etc.), public access and reporting requirements, and the security and access control mechanisms, and estimated a platform that can accommodate tactical needs but that can also scale up in the future. Similarly, One Economy used existing GIS architecture deployed by One Economy to identify the server and client software components. Based on these, One Economy proceeded to estimate the hardware and software cost for the platform using the manufacturers' published costs.



For this project, one database server with Direct Attached Storage disk array, one ArcIMS map server, one Application Server, and one Web Server were provisioned. Software licenses for Oracle and ArcIMS software were estimated based on the hardware. Detail is provided below.

	Server	Qty	Price	Total
Database Server	Sun T5220 CoolThreads Server	1	\$ 28,000.00	\$ 28,000.00
	8 Core / 64 Threads @1.4 GHz Sparc T2			
Accessories	SG-XPCIE1FC-EM4 FC-AL HBA	2	\$ 1,000.00	\$ 2,000.00
	SESX3G11Z 300GB SAS 10K Hard Drive	4	\$ 625.00	\$ 2,500.00
	9733A-Z Optical Cables	4	\$ 45.00	\$ 180.00
Storage	Sun StorEdge 2540 Disk Array	1	\$ 16,850.00	\$ 16,850.00
	3.6 Terabytes 12 x 300GB 15K SAS	12	incl	
Map & App Server	Sun T5120 CoolThreads Server	2	\$ 15,000.00	\$ 30,000.00
	4 Core / 32 Threads @1.2Ghz Sparc T2			
Web Server	Sun Fire X2200 M2 Server (2x3.0Ghz)	1	\$3,200.00	\$ 3,200.00
	500 GB SATA Drive	2	\$300.00	\$ 600.00
Shipping for Above				\$ 450.00
	Hardware Subtotal			\$ 83,330.00
	Software	Qty	Price	Total
DRBMS	Oracle Licensing (multiplier .25 x cores)	2	\$40,000	\$ 80,000.00
Map Server	ArcIMS	1	15000	\$ 15,000.00
	Software Subtotal			\$ 95,000.00
Hardware and Software Cost				\$ 178,330.00

Travel Cost: Similarly, number and frequency for travel estimated based on the Project Plan were used to derive the cost based on the federal government's published rules and regulations.

Intra-State

Monthly partner meetings are planned during the 1st quarter after project initiation. Trips will be taken on a quarterly basis for the 2nd through 4th quarters and once every 2 quarters for the balance of the project. Estimated number of trips for partner meetings: 15 trips @ \$250 per tip = \$3,750

Domestic

Monthly partner meetings are planned during the 1st quarter after project initiation. Trips from Washington D.C. to Mississippi will be taken on a quarterly basis for the 2nd through 4th quarters and once every 2 quarters for the balance of the project. Estimated number of trips for partner meetings: 15 trips @ \$2,500 per tip = \$37,500

Indirect Costs: Were calculated at a federally negotiated rate of 20.6% of Modified Total Direct Costs (MTDC). MTDC consists of all salaries and wages, fringe benefits, materials and supplies, services, travel, and the first \$25,000 of each sub-grant or subcontract.



Matching Contributions: Finally, three separate methods were used to determine the true and accurate value of the non-federal matching contributions. First and most straightforward, One Economy secured funding allocations from non-governmental foundations. Secondly, One Economy, as well as the OG, provided a list of tangible data set, imagery, and hardware and software that will be donated to the Program. Data set values and other costs were estimated based on the current market value. Finally, State employees' time involved with the project were estimated to complete calculations for the required matching funds.

Map, Imagery, Business and 3D Data, Software, ...	Descriptions	Five Year Costs
Google	3D Building Data, Imagery	\$350,000
State Provided Data		
MS-specific GIS data sets	GIS data sets from various state agencies residing on the Mississippi Geospatial Clearinghouse, as well as other data storage platforms.	\$100,000
		\$450,000
State Support (Personnel)		
MDITS (See below)	Project Admin	193,000
Total State Funding		193,000
Total In-Kind Funding		\$643,000

ITS CORE TEAM – PERSONNEL AND SKILL CATEGORIES (MDITS)

State Project Director – Oversees the contract with awarded vendor, serves as the primary POC with the Office of the Governor, and is responsible for the overall project administration.

State Project Manager – Responsible for managing the day-to-day details of the project, managing the mutually agreed-upon Project Work Plan, and providing status reports to the Office of the Governor.

State Geographical Information System Subject Matter Expert – Serves as the technical expert for the Project, provides technical advice on the design of and oversees the implementation of GIS project applications.

Team Function	Phase 1 – 1 st Six Months	Phase 2 – 2 nd Six Months	Phase 3 – Remaining Four Years	5 Year Costs
State Project Director	0.4 FTE	0.2 FTE	0.05 FTE	
State Project Manager	0.6 FTE	0.4 FTE	0.1 FTE	
State GIS SME	0.2 FTE	0.1 FTE	0.05 FTE	
Totals:	\$87,000	\$50,400	\$55,600	\$193,000



STATE-LEVEL GIS DATA

State Provided Data	Description	5 Year Costs
MS-specific GIS data sets	GIS data sets from various state agencies residing on the Mississippi Geospatial Clearinghouse, as well as other data storage platforms.	\$100,000

Planning Budget Narrative

Project Management – Management of the deployment of One Economy members, data analysis, and report delivery. Managed by a Senior Project Manager - \$75,000

Digital Connectors Training and Deployment Costs – The Digital Connectors will be chosen, trained, and focused on gathering data. Equipped with laptops and a custom application, they will have the most efficient means to aggregate and transmit data. Their training will involve the necessary knowledge and skills to conduct these surveys, but more importantly, to provide leadership and passion for the project. - \$200,000

Regional Staff for Community Outreach and Hardware Acquisition – Staff member will be deployed to work with the Broadband Opportunities Coalition and community organizations to set up town hall meetings, meet with community stakeholders and aggregate data. In addition, this staff member will coordinate the affordable hardware acquisition program. - \$60,000

Digital Connector On the Ground Support and Supplemental Training – Mid-level staff members will be working with Digital Connectors in the field to ensure that the program is being run effectively and properly. - \$25,000

Report Development and Creation – We will focus a lot of effort on ensuring that the data collected is efficiently ingested into the core Broadband Mapping dataset and that specific outputs are generated to provide data analysis, create strategies and recommendation development, and to track our success. - \$40,000

Operating Expenses - Covering all operating expenses involved with recruiting Digital Connectors and facilitating locations for town hall meetings. - \$10,000

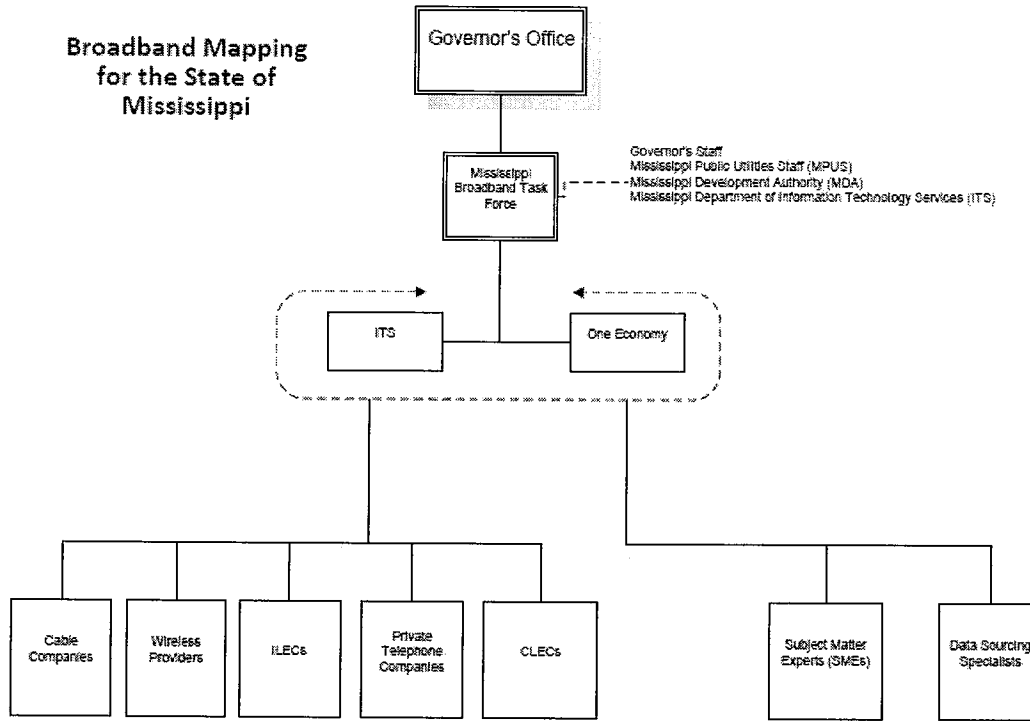
Travel – Covering expenses incurred during the grant period for travel to the State of Mississippi to monitor activities and ensure full compliance with planning procedures - \$8,000

Applicant and the One Economy Capacities

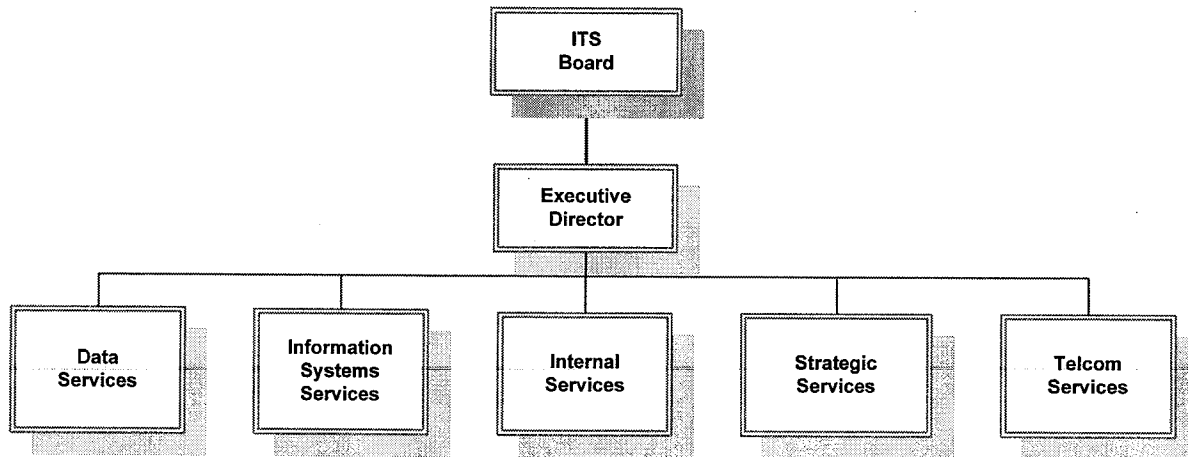
One Economy’s expertise and roles are described in detail in the previous sections. However, beyond what is described, One Economy will be working with team members from the



State of Mississippi whose experience can greatly enhance project feasibility. This section summarizes the team member's composure and reach.



Core Personnel and Skill Categories



- **State Project Director** – Oversees the contract with awarded vendor, serves as the primary POC with the Office of the Governor, and is responsible for the overall project administration.



- **State Project Manager** – Responsible for managing the day-to-day details of the project, managing the mutually agreed-upon Project Work Plan, and providing status reports to the Office of the Governor.
- **State Geographical Information System Subject Matter Expert** – Serves as the technical expert for the Project, provides technical advice on the design of and oversees the implementation of GIS project applications.
- **Stimulus Director** will be responsible for working with the entire team on development and execution of strategies aimed at raising awareness and adoption.
- **OG Chief Policy Analyst** will be responsible for overall oversight of the Broadband Data and Development Initiative for the State of Mississippi.
- **Director of Communications - MPUS** is the primary point on telecommunication matters in Mississippi. She will work with One Economy on supplying and updating the database of CLECs, ILECs, Cable providers, wireless companies and WISP.
- **Special Assistant to the CEO of One Economy** will be responsible for Broadband Planning project management, creation of user experiences, & external partner coordination.
- **ITS Project Manager** will be responsible for evaluating the project on an ongoing basis. Will serve as the interface between ITS and One Economy.
- **Program Manager** will focus on oversight of project management application, development and implementation of methodology, guides, best practices and metrics.
- **Technical Project Manager** will focus on assisting with managing the day-to-day details of the technical execution and is also specifically tasked with ensuring high quality standards are met.
- **Database and Requirements Engineer** will create and design RDBMS database model to store Broadband maps, demographic data, broadband assets and services. This position is also responsible for the creation of collection requirements and specifications for all databases.
- **Database Administrator** will manage and coordinate project database services.
- **GIS Systems and Mapping Engineer** will be responsible for deploying the selected GIS suite of tools for production. This position will also write required production scripts and tools to interact with or to incorporate other 3rd party sources.
- **Applications and Tool Engineer** will work with Google KML and Microsoft.net / Bing environments to integrate 3rd party data and applications on top of Google Earth or Microsoft Virtual Earth.
- **Geo-coding and Conflation Engineer** will develop algorithms and tools to perform geo-coding and reverse geo-coding to assist with geo-coding functionality. This position will also manage geopolitical and postal structures.



- **Sr. Quality Control Manager** will be responsible for the overall quality metrics which includes measurement criteria, definition of quality requirements, development of quality tools, and quality & certification processes. This position is also responsible for conducting and executing quality control / assurance programs to ensure that all input data sources and generated map data meet quality control specifications and requirements.
- **Senior Web Designer** will be responsible for Broadband Portal development; integration with Google maps or MS Virtual Earth and One Economy content to render broadband availability and serviceability result.
- **Cartographic Specialist** will be responsible for the production aspects of street map data manipulation, X boundary generation, creation and aggregation, geo-referencing 3rd party data, such as demographics data and serviceability data, to highly accurate street map data. This position is also responsible for the formatting and preprocessing of 3rd party input sources to meet preproduction specifications and requirements.

Extended Team

One Economy plays a major role in the supply and demand-side “Planning” phase for this Program by bringing resources of 90 full-time employees at 10 offices worldwide. One Economy uses innovative approaches to deliver the power of technology and information to rural and low-income people. In these efforts, One Economy has worked with a wide range of partners including CTIA, NCTA, Microsoft, Google, Cisco, Allstate, the Ford Foundation, and others.

In addition to involvement in broadband access programs, One Economy has a track record of delivering programs that result in broadband adoption. The resulting effort will be a comprehensive supply and demand side solution that contains the most comprehensive and verifiable broadband data set and map available for the State of Mississippi.

One Economy will be working with a selection of interest group stakeholders that represent a wide range of interests. The stakeholders include:

- **The New America Foundation** is a nonprofit, nonpartisan public policy institute. Through its Wireless Future Program and Open Technology Initiative, New America pursues a mission of ubiquitous and affordable broadband connectivity for all.
- **Broadband Opportunities Coalition** – Major national civil rights organizations have come together with One Economy to focus on addressing policy barriers that have slowed broadband growth, and promote the need to increase the adoption and use of related technologies to create greater wealth and new job opportunities.
- **Schools, Health and Libraries Coalition** – The coalition promotes connecting anchor institutions with high-capacity broadband to provide the greatest benefits to the disadvantaged and other unserved and underserved segments of the population.
- **BroadMap L3C** is a digital mapping and data aggregation company based out of



Michigan. They have extensive experience in digital mapping. Their team has spent over 150+ years working for and with companies in the space including eTak, Geospatial Data Corporation and TeleAtlas. They have extensive work in the Broadband serviceability area, assisting in the creation of a nationwide Broadband serviceability tool in 2000.

Expedited Data Delivery

Expedient Data Delivery requirements are addressed by One Economy’s capacities, knowledge, and experience in data collection, automated processing, and existing applications and methods for data publications which are currently in use supporting a number of critical and emergency services. Similarly, One Economy’s expertise in engineering automated processing of data, broadband data interface modules, and distributed data architecture, all offer optimal solutions to address the *Process for Repeated Data Updating*.

The State of Mississippi and its partners have the ability to reach all the timelines set forth by the NTIA. The plan is to utilize a three stage process to launch multiple versions of the solution, as summarized in the Table below. In order to meet the timelines, One Economy has allocated considerable resources within the first two quarters of the project. These resources can assist with data collection, processing, and automation, as applicable.

Project Timeline	
Tasks	Time frame
Acquisition of hardware, software and data sources	20 Days
Initial configuration, integration, implementation, data ETL, output definition	30 Days
Generation of initial analysis and results	45 Days
Refinement of analysis and results, plus integration of additional sources & capabilities	4 Months
Completion of the development of dynamic mapping platform. Full integration of all carrier serviceability data and third party source data.	6 Months

Table 2 - Project Timeline for Substantially Completed Data

Additionally, One Economy has extensive experience in digital mapping and serviceability experience, including development of core platforms that allows for automatic and manual conflation of data from over 50,000 sources nationwide. These sources of data include large imports from the Department of Transportation and InfoUSA (Geo-referenced Points of Interest Data) and others to individual user street geometry corrections. The ability to manage such diverse input mechanisms (including other diverse sources of data explained earlier) attest to the strength of One Economy’s solution. We will manage the Broadband serviceability in the same manner.



Substantially Complete Set of Data By November 1, 2009

In order to meet this deadline, while the acquisition of hardware and software are taking place, One Economy exists and extensive GIS environment may be used to acquire and process licensable data. The initial configuration, integration, implementation, data ETL and output definition will be completed in 30 days. Within a 45-day period, One Economy will generate the results of the initial survey. The key to this first release is:

- The Ingestion of the Raw Form 477 Data
- All Licensable Data Sources
- Integration of Core Digital Mapping
- Ingestion of Demographic Data
- Core Points of Interest and Anchor Institution Data

One Economy will then be able to assist the State in developing its initial assessment of unserved and underserved Broadband areas and their ranking based upon agreeable demographical attributes. During this period, One Economy will also begin to dynamically integrate into the carrier systems.

Substantially Complete Set of Data By February 1, 2010

The secondary release will be a more thorough perspective of broadband serviceability. Along with the data that was ingested and conflated in the first release, additional data sources will be incorporated into this release. These sources include:

- First Generation of Real-time Broadband Provider Data
- Quality Control Release of Initial Anomaly Batch of Data
- Digital Connector Survey Data Ingestion
- Broadband Data Sampling interface will be launched to allow Carriers data sampling
- Ingestion of first release of wireless spectrum data
- Speed Test Ingestions
- Release of 1st Generation of State, Regional and Municipal Data Ingestion

Substantially Complete Set of Data By March 1, 2010

The Broadband Serviceability final release will include all of the elements mentioned above in a fully automated solution. This is the official launch of the ConnectMap Live solution. All ingestion will be done in an automated or semi-automated process with the exception of the following:

- Anomaly Data Management
- Small Provider Data Ingestion – Some of these providers will still require One Economy to accept their data via facsimile, excel spreadsheet, email and ftp.

The final launch will include the completion of the following areas of development:

- Launch of All Broadband Provider Data
- Finalization of Development of Ingestion Process To Manage All State, Regional and Municipal Data.



- Full Automation of Wireless Spectrum and Serviceability Data
- Crowd Sourcing Ingestion Tool Completed

Access Applications Going Forward

Finally, One Economy's experience in automated processing, ingest, and publishing of data will be used during the course of the project to ensure timely access to accurate and updated information for various constituents (and according to the security guidelines). Activities here will include:

- Continual fine-tuning of the automated data processing and ingest;
- Developing web-enabled and web-accessible applications based on existing models;
- Defining and releasing standard web-enabled "feature" and "map" services; and
- Developing automated processes for data export and reporting, including those required to meet the "updatability" (and associated periodic reporting) requirements by NTIA.

Process for Repeated Data Updating

The production and updating process of the database is an ongoing process that provides the latest and freshest content. The frequency of map/content updates varies depending on the type of source. For example, the detailed street network shall be updated on a monthly basis. Broadband coverage and serviceability updates can range from daily for user-generated content to semi-annual for FCC Form 477 data.

Our dynamic map database architecture allows for a "LIVE" product server to be utilized for product generation and on-demand query access by any entity at anytime producing results and user experience similar to Google Maps and/or Microsoft BING. The product server will be refreshed on a daily basis from content updates made to the core database.

To the extent possible, the procedures developed for initially populating the Broadband database will be automated and scripted such that they can be run repeatedly throughout the 5-year grant period and beyond. The update process will involve:

- Obtaining updates from the service provider (including secured service-based processes);
- Using XTL processes to transform Service Provider data into the Staging Area Database, performing basis pre-processing data consistency checks, basic data normalization, etc.;
- Periodically updating data layers associated with Community Anchor Institutions, a task which is already part of One Economy's standard DGB processes;
- Processing and transforming Staging Area and GDB-stored data into the Broadband Production database, performing necessary geocoding, conflation, spatial editing and spatial overlay/analysis tasks as outlined above;
- Running scripts to prepare updated reports and datasets for NTIA; and,
- Running scripts to prepare public access data, passed through appropriate filtering steps to strip-off proprietary and confidential data



Furthermore, the One Economy will ensure updateability by including the elements below:

- All data licenses are annual licenses and will be renewed each year.
- Through data sourcing and quality control, One Economy will continue to work to expand its core data sourcing list to include newly licensable data as it becomes available.
- One Economy's relationship with Navteq provides the company with quarterly updates of its core digital maps which allow the Company to do additions and deletions in an automated process.
- Agreements will be made with ITS to supply the Company with relevant data updates on a monthly or quarterly basis
- Key demographic information will be ingested as additions and deletions to provide a simple format to update anchor institutions, small, medium and large-sized businesses, health care facilities and educational institutions.
- Budgets for ongoing surveying have been developed to allow for verification of data throughout the five years.
- All non-disclosure agreements with the service providers will extend for the period of the grant.

A dedicated Data Specialist, an Account Manager, multiple technical support reps, and an Executive sponsor will manage this effort for the duration of this agreement.

Planning and Collaboration

Effective outreach to collaborators and key stakeholders, "best practices" for project management, and Key Performance Indicator (PKI) evaluations will all be used to ensure success in this effort. Reporting will also be utilized to assure transparency. Each of these approaches is described below.

Collaborators and Key Stakeholders

One Economy has already established a very wide reach to and existing relationships with important stakeholders and collaborators across the State. It will be critically important to build consensus for the initiative. One Economy will include the following stakeholders within and outside of the State of Mississippi:

- Mississippi Office of the Governor – Lead Administrator
- Mississippi Broadband Task Force (MBTF)
- Mississippi Department of Information Technology Services
- BroadMap, Google and New America – Broadband Experts and Implementation;
- Other key stakeholders and collaborators include:
 - Service Provider Member(s)
 - Navteq;
 - Schools, Health and Libraries Coalition Representative;
 - MEMA



- Mississippi Geospatial Clearinghouse
- Mississippi Public Utilities Staff
- Other State Officials and stakeholders, as appropriate, include:
 - Mississippi Development Authority ;
 - Mississippi State Department of Education;
 - Mississippi Department of Health
 - Mississippi Department of Transportation
 - Mississippi State Tax Commission

As previously noted, One Economy already has working relationships with the Broadband Service Providers, will communicate the Program objectives to the major providers, and will work to obtain their commitment to the process. Similarly, One Economy has existing data sharing agreements with many of the State agencies named above. And finally, One Economy has access to a wide range of national resources that can augment One Economy's capacities and collaborative circle. One Economy will also be extending and formalizing new partnerships with the service providers and other key stakeholders, as appropriate.

Project Planning and Management

From the implementation perspective, the following is an overview of One Economy's Project Management Processes, utilizing best practices approach to project planning and collaboration. This process recognizes the following five major stages during the course of a project: a) Project Initiation Stage; b) Project Planning Stage; c) Project Execution Stage; d) Project Monitoring and Controlling Systems; e) Project Completion Stage.

The relationships among the components are depicted here.

Project Initiation Stage

Project initiation involves finalizing contractual agreements, gathering of the Subject Matter Experts (SME) for a detailed review, determining the scope and nature of the broadband mapping effort, and detailing tactical and strategic planning. Focus elements of this stage are:

- Study analyzing the business needs in measurable goals.
- Conceptual design of the operation of the final products.
- Equipment and contracting requirements including an assessment of 'long-lead' items.
- Financial analysis.
- Stakeholder analysis, including State Departments, Broadband Providers, and support personnel for the project.
- Project charter including costs, tasks, deliverables, and schedule.

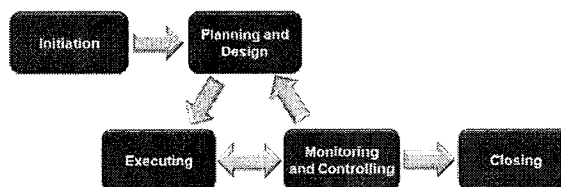


Figure 5 - Project Planning & Management Stages



Planning and Design Stage

During this stage, the system design is completed; prototype system is built and configured; the data model is established; and the initial database with licensed data and a control Broadband Provider dataset is tested. Controls are created to ensure that the final product will meet the specifications of the NTIA Technical Appendix. The results of the design stage should include a product design that:

- Satisfies the State of Mississippi, NTIA, Broadband Providers and the end users
- Functions as it was intended.
- Produced within quality standards.
- Produced within time and budget constraints

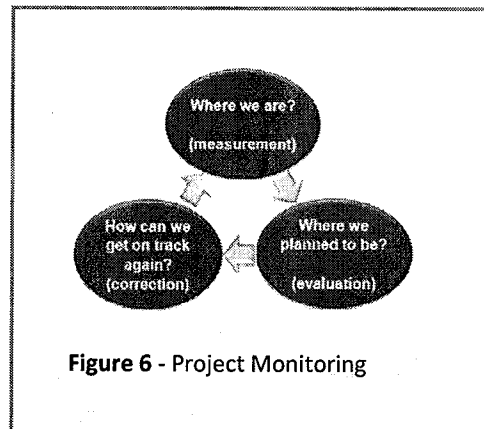


Figure 6 - Project Monitoring

Project Execution Stage

This stage involves development of the processes used to complete the work defined in the project management plan to accomplish the project's requirements. One Economy will coordinate people and resources from the Consortium, data partners and the State of Mississippi, as well as integrate and perform the activities of the project in accordance with the project management plan. The deliverables are produced as outputs from the processes performed as defined in the project management plan.

Project Monitoring and Controlling

Monitoring and Controlling consists of processes performed to observe project execution so that potential problems can be identified in a timely manner and corrective action can be taken, when necessary. The Broadband Mapping performance will be observed and measured regularly to identify variances from the project management plan:

- Measuring the ongoing project activities (where we are);
- Monitoring the project variables (cost, effort, etc.) against the project plan and the project performance baseline (where we should be);
- Identify corrective actions to properly address issues and risks (How can we get on track); and
- Influencing the factors that could circumvent integrated change control so only approved changes are implemented

Project Completion Stage

One Economy will close after each stage of the project by denoting the formal acceptance of the deliverables by the constituents. Administrative activities include the archiving of the files and documenting lessons learned. The Broadband Mapping closing phase consists of two parts:

- Close project: to finalize all activities across all of the process groups to formally close the project or a project phase.
- Contract closure: necessary for completing and settling each contract, including the resolution of any open items, and final reporting and acceptance.

Key Performance Indicators (KPIs)



Beyond the Project Plan, One Economy will utilize Key Performance Indicators to assure focus on the tangible and measurable results and gauge the project’s real world impact on policy making and the success of the Broadband mapping initiative. These KPIs will ensure that the company keeps a focus on the key areas of performance. Here are some KPIs to be considered for this project.

Key Performance Indicator	Description & Notes
Government Relevance	To be defined within the policy context by real value and impact measured in fact or as perceived by various State of Mississippi regional government agencies, communities, and end users.
Business Relevance	To be defined within the business context primarily for telecom providers who participate in the program by real value and impact measured in fact or as perceived by end users.
Stakeholder Engagement	Complementing the Government Relevance and Stakeholder Engagement KPIs, gauge the quality of interaction and level of engagement with all the various stakeholder groups and participants on an ongoing basis.
Data Accuracy and Improvement Processes	The use of a blended approach will allow the cross check of various data elements and comparison of source data quality, however all anticipated data sources have limitations and shortcomings that a set of quality metrics and process improvement measurements can and should address.
Reportability	The measurement of whether the project, its standard deliverables, and ad hoc use deliver the right level of information to the end user as needed.
Governance and Compliance	The project will utilize an array of varied data sources each with their own rights and obligations defined by agency policies, license terms and conditions, contributors’ proprietary concerns, and privacy concerns which should be codified in project policy, tracked in real time, re-mediated when necessary, and reported on periodically.
Performance to Budget and Schedule	Though grant and commercialization opportunities will affect long term opportunities and direction, the initial budget and schedule will be defined and should be readily measurable by standard agency accounting and management practices.

Table 3 - Key Performance Indicators

Planning

One Economy’s Broadband Planning program creates a solution for bridging the gap between the broadband map and the subsequent policy and consumer-focused decisions that are needed to ensure statewide broadband adoption. Broadband adoption helps people as well as businesses enter the economic mainstream and be active participants in the Digital space.

Well designed and well-executed broadband adoption programs are vital for Mississippi to make significant progress in realizing the economic, educational, and personal benefits of universal broadband adoption by all segments of the population. One Economy’s planning program will have an emphasis on the following goals; (a) developing a baseline assessment on Broadband deployment, (b) identifying and tracking areas of low Broadband penetration and implementing suppliers who could assist the State in increasing adoption, (c) identifying barriers of



adoption for Broadband, (d) creating regional and local Digital Connector programs to manage planning One Economy's and efforts, (e) establishing Internet and computer ownership programs, (f) collect Broadband market data to incorporate into One Economy's core Broadband mapping database, (g) facilitating exchange of information between private and public sector partners and (h) creating tools to be able to automatically input data into the core Broadband Map.

One Economy has demonstrated that well-executed broadband adoption leads to knowledge and action in health, entrepreneurship, financial literacy, and education. Mississippi is proposing to make best use of the Broadband Planning funds available through combining macro level data with on the ground demand-side data to achieve its goals.

One Economy has developed a customized Digital Connector program for Mississippi. Digital Connectors are a task force of youth ages 14-21, who live in underserved areas and are exposed to the benefits of information technology through a comprehensive curriculum. They are trained to be technology ambassadors in their communities. Their primary role is to aggregate survey data at the street level, conduct and gather data through town hall meetings, and to manage and promote the affordable hardware acquisition program. The Digital Connectors provide a community with a passion for technology and a commitment to train and assist underserved populations on the benefits of Broadband and technology.

The Digital Connectors program is One Economy's planning solution designed to provide a process for accomplishing its goals. The proposed solution includes:

Broadband Availability Determination - The project will utilize the supply-side data collected from the overall mapping project to identify highly underserved/unserved areas and focus on those communities with the most need.

Identification of Barriers to Broadband Adoption - The Broadband Planning efforts will focus on collecting demand-side data and insight from the unserved and underserved communities to identify and understand the barriers to broadband adoption. A comprehensive Broadband Planning report will include highly localized short, medium, and long-term recommendations for increasing Broadband adoption and utilization throughout the state. Based upon that report, an action plan will be developed and implemented and will be continuously monitored and adjusted as necessary.

Increased Computer Ownership and Access Programs - One Economy has extensive experience in creating programs to increase broadband adoption and computer access among unserved and disadvantaged communities. With the assistance of One Economy's hardware OEM partners, the Company will establish an affordable hardware acquisition program for the underseved and unserved communities in Mississippi.

Increased Community Anchor Institutions Broadband Availability - One Economy's Broadband Mapping program will assist the company in identifying the Anchor Institutions that do not have ubiquitous broadband service. Once identified, the Company will create a plan to deliver Broadband hardware and service to those locations.



Promotion of Local Community Engagement – Through the Company’s working with community stakeholders and by enlisting the support of the Broadband Opportunities Coalition which consists of the National Association for the Advancement of Colored People, League of United Latin American Citizens, National Urban League, National Council of La Raza, and the Asian American Justice Center, One Economy will coordinate resources and planning efforts to promote Broadband awareness and adoption..

The primary outcome of the Planning initiative will be to:

- Lower the price of broadband via public/private partnerships that further offset the cost;
- Increase the awareness of the benefits of broadband;
- Promote digital literacy to increase the ability to utilize broadband;
- Provide relevant content;
- Facilitate the acquisition of affordable hardware

Reporting

As the Applicant and administrator, DCCA recognizes that pursuant to OMB Memorandum M-09-21, it is responsible for the reporting of all data required. The sub-awardees and contractors also acknowledge and will comply with the guidelines and requirements set forth by the Federal Funding Accountability and Transparency Act of 2006 and OMB Requirements for Implementing Sections 1512, 1605 and 1606 of the Recovery Act, and provisions regarding “Buy American,” wage rate, and separate identification of funds requirements.

The State of Mississippi shall complete reporting functions per the NOFA requirements.

