Dear Reader:

The essay questions and answers presented on the next two pages are duplicated here to highlight them for your review. You will see them again in their "proper" locations later in the document.

Additional reasons why you believe that Google should select your community for this project (2,500 characters maximum):

In 2020, people will look back and speculate about when the big changes began in Baltimore. And the consensus will likely center around 2003.

Baltimore's per-capita income is today growing faster than in any other metropolitan area in the country. Our downtown population has recently grown by 22%; experts predict future explosive growth.

In the last decade, $10 billion has been invested in new development projects. Projects totaling $5.4 billion are underway now. Our music and arts scenes are flourishing. Baltimore was named "Best Music Scene" by Rolling Stone in 2008. "Music by Prudence," a documentary by Maryland Institute College of Art faculty, just won an Oscar.

The Baltimore area, already a hotbed for information technology professionals with advanced degrees, is seeing increased investment as a result of the 2005 Base Realignment and Closure program, importing thousands of jobs to the National Security Agency at Fort Meade. This has caused an explosion in new IT-related jobs at large firms like Northrop Grumman, Raytheon, and Ciena, along with a need for increased communications bandwidth.

Baltimore City is poised to become the residential and cultural center for this influx of new professionals. An aggressive revitalization program is underway, led by two one-million square foot biotech parks adjacent to Johns Hopkins Medicine and University of Maryland. Major mixed-use transit-oriented development projects with thousands of new housing units are planned for transit stops. These vibrant, compact and walkable communities will contain state-of-art conduits for delivery of broadband service.

Like all American cities, we also face challenges. Some of our citizens are not yet able to benefit from our renaissance; but George Soros' Open Society Institute (OSI) has singled out Baltimore because its strong community institutions and potential for growth make it the perfect target for high-impact philanthropy. OSI has pledged to support Google's effort in Baltimore with specific investments to help eliminate the digital divide and get more people online.

We were able to quickly organize an effective campaign in support of this trial because our technology and entrepreneurial community is already organized. Baltimore is home to emerging tech events like Ignite, Barcamp, and RailsConf 2010.

We create data and we know what to do with it. Google fiber belongs in Baltimore.

Other significant features of your community that could be relevant for this project (2,500 characters maximum):

We would like to stress three relevant features of Baltimore:

1. **Great Applications**: The strong cluster of medical, financial, educational, and non-profit institutions, and the interesting work they do here, provides a great set of potential applications to explore;

2. **Greater Project Control**: Baltimore is unique in that the city itself owns and operates the primary conduit system used for electric and telecommunications services;

3. **Strong Beachhead**: Baltimore can serve as a visible "beachhead" to both demonstrate and replicate the project;

Baltimore offers a compelling set of potential applications for ultra high-speed Internet in a relatively small geographic footprint. Johns Hopkins (the nation's top research and medical university) and the University of Maryland-Baltimore generate huge amounts of data and are developing biotech parks adjacent to their campuses. Morgan Stanley, T. Rowe Price and Legg Mason have recently expanded their presence in the City, further solidifying Baltimore's position as a top wealth management and trades processing center. Full descriptions of potential applications, including those related to Hubble Space Telescope, the Walters Art Gallery, Medical/Tele-surgery, Bioinformatics and Music/bands can be found on our website at http://bmorefiber.com/google.

Baltimore is unique among municipalities in that it owns and operates the primary conduit system used for electric and telecommunications services, with approximately 3.96 million linear feet of cables through 14,000 manholes. The City is currently completing a project to automate the provisioning of conduit capacity, documenting every manhole and duct-bank. This should help streamline and simplify deployment of Google's high-speed lines.

Baltimore is uniquely positioned to serve as a "beachhead" for visibility and expansion of this prototype project given its location within the Northeast US Corridor and the Washington-Baltimore metro area (with the nation's highest concentration of IT workers). Proximity to nearby Washington, D.C. provides visibility and ready access to federal government decision-makers and regulators. The concentration of vital federal agencies in Maryland (National Security Agency, Social Security Administration, Centers for Medicaid and Medicare, National Institutes of Health and NASA) and the IT and government contractors who serve them, offers high visibility to large potential users within the region.

1. General information

* Required fields

Name of governing body: * Mayor and City Council of Baltimore

Name of this response: Baltimore City Municipal Response

List communities included in your response:
This is a municipal response, which represents the mutual interests of the Mayor
and City Council, city residents, Baltimore's largest employers, community
associations, citywide non-profits, umbrella organizations, business associations,
and block groups.

2. Background information about your community

Population (2008): *
If the response is for part of a city, please enter the corresponding population. 640,000

Populated area in square miles: *
If the response is for part of a city, please enter the corresponding populated area. 80

Please describe how the population is distributed:
Baltimore is the urban center of the nation's 20th largest metro area (pop: 2.67 million). The City's population spreads out evenly from the downtown core through 225 distinct neighborhoods. With 22 percent population growth over the past decade, the Inner Harbor area is now home to 40,000 residents and 106,000 employees, making it the nation's 8th largest downtown.

Median household income ($ per annum): * 40,087

Number of housing units: *   294,319
Number of single family homes: 196,047
Number of multi-family homes: 72,830

Number of apartment complexes: 1,959
Average number of units per apartment complex: 50

Number of gated communities: 0
Average number of housing units per gated community: 0

Approximate percentage of households in entire community with access to broadband Internet service (%): 75

Approximate percentage of households in entire community that are currently subscribing to broadband Internet service (%): 60

Terrain:
Overall description of terrain:
Baltimore City is a fully built-out, predominantly urbanized area laid out on a grid system. It is situated on the tidal portion of the Patapsco River, which feeds into the Chesapeake Bay. The city is located on the fall line between the Piedmont Plateau and the Atlantic Coastal Plain. Elevations range from sea level at the Inner Harbor to 480 feet in the northwest corner.

Percentage of plains (%):   10
Percentage of rolling hills (%): 77
Percentage of mountains (%):   0
Percentage other terrain (%):   13

Climate:
Average annual highest temperature (°F):   91
Average annual temperature (°F):   55
Average annual lowest temperature (°F):   30

Average amount of snowfall per year (inches): 21
Average amount of rainfall per year (inches):   42
Average amount of hurricane or tornado activity in a year (days): 1

Local government:
Form of local government: *
Baltimore City is a corporation known as the Mayor and City Council of Baltimore

Local government rule: Home rule

Source of government decision-making:
City Contracts must be approved by the Baltimore City Board of Estimates, made up of the Mayor, City Solicitor, Department of Public Works Director, City Council President and Comptroller, the Board of Estimates meets weekly to award contracts. The City Council is responsible for adopting legislation.

Utilities:
Please list largest utilities and the approximate percentage of the community covered by each provider:

Provider name: Coverage (%):
Electric: Baltimore Gas & Electric   100
Gas: Baltimore Gas & Electric   100
Water: Baltimore City   100
Sewer: Baltimore City   100
Cable: Comcast   100
Phone: Verizon   100
(The above listings reflect an approximate percentage of coverage as defined not by existing contractual obligations but by geographical potential.)

Local economy mix (if available):
Number of high tech jobs: 24,475
Number of manufacturing jobs: 14,900
Number of education services jobs: 36,300
Number of other service sector jobs: 287,700

Colleges and universities (List names and average number of students enrolled at each, if available):

Johns Hopkins University	18,000
Morgan State University	7,000
Baltimore City Community College	7,000
University of Maryland, Baltimore	6,100
Loyola University Maryland	6,000
University of Baltimore	5,800
Coppin State University	4,000
College of Notre Dame of Maryland	3,000
Maryland Institute College of Art	2,000
Peabody Institute	2,000
Sojourner-Douglass College	1,200
Baltimore International College	500
St. Mary's Seminary and University	250

Major hospitals/health care facilities (List names):

Bon Secours Baltimore Hospital
Good Samaritan Hospital of Maryland
Harbor Hospital
Johns Hopkins Bayview Medical Center
Johns Hopkins Hospital
Kennedy Krieger Institute
Maryland General Hospital
Mercy Medical Center
Mt. Washington Pediatric Hospital
R Adams Cowley Shock Trauma Center
Sinai Hospital of Baltimore
St. Agnes Hospital
Union Memorial Hospital
University of Maryland Medical Center
VA Baltimore Hospital

Current providers of high speed Internet service (Company; DSL, Cable modem, wireless, fiber, etc.):

Comcast
Verizon
Cavalier
XO
Paetec
Covad
Litecast
Level 3
AT&T
Cogent

Other significant features of your community that could be relevant for this project:

We would like to stress three relevant features of Baltimore:

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3. Collaborating on a Google fiber trial

In this section, we ask you to share how your community would work with Google to enable us to proceed quickly and effectively.

Are you, the local government, willing to appoint an individual to serve as a single point of contact (1)? * Yes

If so, please describe the responsibilities and authority that this individual will have:
The point of contact will oversee an inter-agency team authorized to secure public approvals and permits, and to remove obstacles. The team will include a high-ranking representative from each of the following city agencies: Department of Public Works, Department of General Services, Mayor's Office of Information Technology (MOIT), Department of Planning, Department of Transportation, Law Department, and the Baltimore Development Corporation. The responsibilities of the point of contact will include leading negotiations for any agreements and partnering with the newly assembled Technical Deployment Committee, chaired by the Mayor's appointed Google Czar. The team consists of institutional and private sector infrastructure experts tasked to accelerate fiber optic deployment in Baltimore.

Describe any current or planned programs in your community to accelerate and expand adoption and use of broadband Internet access:

Baltimore is engaged in four key strategies to expand broadband adoption.

First, the city's aggressive revitalization programs have created five zones of new development that will be equipped with modern fiber optic infrastructure from the start.

Second, the city/state have pursued Broadband Technologies Opportunity Program funds to support the development of broadband infrastructure in underserved areas, to enhance broadband capacity at public computer centers and to encourage sustainable adoption of broadband service.

Third, Google Fiber would provide a positive framework for the Baltimore-based Open Society Institute Foundation (George Soros) to fund broadband adoption programs and to alleviate digital divide concerns.

Lastly, a 2009 University of Baltimore study showed that 75% of city residents have Internet access in their homes. The Enoch Pratt Library also makes broadband available via its 22 branches and 500 public-access computers throughout the city.

Additional reasons why you believe that Google should select your community for this project:

In 2020, people will look back and speculate about when the big changes began in Baltimore. And the consensus will likely center around 2003.

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Please provide a web link to any additional information you wish us to consider. Submissions using Google Maps or YouTube are encouraged:

http://www.bmorefiber.com/google

4. Your community's support

Have you performed any outreach, study, or analysis regarding support in your community for this type of trial? * Yes

Describe how you ascertained or plan to ascertain the level of community support for this project (e.g., surveys, public hearings, meetings with community groups, etc.):

Baltimore created an action committee tasked to implement an outreach plan connecting all city sectors (government, residential, business, education, non-profit.)

We designed a multi-functional website, Bmorefiber.com, which illustrates the campaign, provides calls to action, and maps quantitative and qualitative support from several thousand supporters.

We engaged social networking tools (Twitter, Facebook, e-mail, YouTube, Google Groups, and an SMS campaign), created extensive media coverage, conducted a public survey, and mobilized corporate and residential networking campaigns.

City government designated the effort as highest priority, welcoming dozens of institutional stakeholders to City Hall for a kick-off assembly. Key government personnel led the rallying effort, which included a mayoral press conference, designation of an official Google Czar, and the unprecedented passing of a "Google Fiber" resolution, submitted jointly by the Mayor and all City Councilors.

Please describe your community's level of support for this project:

Baltimore's community of interests strongly and enthusiastically supports this project. With endorsements from the President of Johns Hopkins University and the Chancellor of the University of Maryland System, the university community was quick to recognize the opportunity.

Mayor Stephanie Rawlings-Blake and Governor Martin O'Malley, a former Baltimore Mayor, recorded videos highlighting the transformational qualities of the Google fiber network. The technology and business community see the Google project as a way to attract talent and adopt new business models.

Finally, neighborhood associations, filled with thousands of Google customers, have expressed support for high-speed fiber. We have mapped over 3,200 supporters on our website (bmorefiber.com) as well as over 8,000 via Facebook, Twitter, and SMS. More than 300 businesses, foundations, non-profit organizations, media companies, and neighborhood associations have lent their endorsement to bmorefiber.com.

Please briefly summarize any additional comments or suggestions you would like to make to Google on behalf of your community:

Baltimore City is a point source for raw data.

We are home to the Hubble Space Telescope, medical images, genome research and medical records. The world-famous Walters Art Museum is digitizing its diverse collection of ancient and Islamic manuscripts (including the Archimedes Palimpsest), and making the raw data available via Creative Commons for use by scholars everywhere.

Baltimore Public Schools CEO Dr. Andres Alonso immediately grasped the implications of upgrading the city's existing frame-relay T1 connections to gigabit fiber links, and connecting its students to the world.

Baltimore has an active and engaged technology community that is advocating for Google. The addition of ultra-fast broadband could push Baltimore's technology community beyond a critical mass and transform the region's economy.

Baltimore is the right place for this trial. The human and physical infrastructure is already in place. We will work with Google to ensure an efficient and effective rollout.

5. Facilities and resources

Deployment of a community-wide FTTH network will require Google to work closely with local government entities and other organizations. Google seeks to identify resources owned by the community that may assist in the rapid, smooth deployment of a residential fiber optic network. In this section, we ask you to share information about particular facilities and assets within the community that may be used or affected as part of such a facilities deployment, particularly those owned by the local government.

Please respond as completely and accurately as possible.

Pole attachments:

Please identify the entities, including units of the local government, that own or control utility poles in your community:

Entity name: Mayor and City Council of Baltimore

Number of poles owned or controlled: 71,000

If the local government will make its own poles available for attachments by Google, please estimate the number of days to complete the following steps, assuming full cooperation from Google:

Negotiation of a master pole attachment agreement: 45
Issuance of permits for individual attachments: 45
Developing specifications for make-ready work: 60
Completing make ready work: 60

If a unit of your local government has access to poles owned or controlled by third parties that it could make available to Google, please provide the following information:

Number of poles:
Entity or entities that own or control the poles:
Rate that you would charge Google ($) per pole per year:

Conduits:

Please identify the entities, including units of local government, that own or control utility conduits in your community:

Entity name: Baltimore City

Linear feet of conduit owned or controlled: 1,000,000 (max entry allowed)
If the local government will make its own conduits available for use by Google, please estimate the number of days to complete the following steps, assuming full cooperation from Google:

Negotiation of a master conduit agreement: 45
Issuance of permits: 45

If a unit of your local government has access to conduit owned or controlled by third parties that it could make available to Google, please provide the following information:

Linear feet:

Entity or entities that own or control the conduit:

Rate that you would charge Google ($) per linear foot per year:

Describe any restrictions on your right to make such conduit available to Google:

Please identify local laws, ordinances, rules, or other legal measures that govern access rights and rates for conduit use:
To use City conduit, a Conduit Agreement approved by the Board of Estimates (BOE) is required. If gaps exist, Google can build conduit and deed it back to the City or build its own with a BOE-approved Developer's Agreement and City Council approved franchise agreement. The franchise rate would be negotiated.

Please provide contact information for any entity named above:
Baltimore City
Jamie Kendrick
Deputy Director, Department of Transportation
417 East Fayette Street
(410) 396-6804
jamie.kendrick@baltimorecity.gov

Public rights of way:

Does your local government directly control and administer the use of all public rights of way within its jurisdiction? Yes

Describe any other entities that control and administer the use of the public rights of way in your community:

With respect to your processes for managing access to public rights-of-way, please estimate the number of days to complete the following steps, assuming full cooperation from Google:

Negotiation, approval, and issuance of a master right-of-way agreement:
60
Issuance of construction permits: 45
Post-construction inspections and approvals: 30

Community sensitivities and policies:

Please describe any historical districts or other culturally or environmentally sensitive areas: *
Baltimore has 70 identified historic districts of varying sizes. The Commission for Historical and Architectural Preservation CHAP works with companies to assure sensitive placement of technology in these districts.

Please describe your undergrounding plans and policies, if any: *
Baltimore has a defined area of downtown (dating back to 1892), which requires the underground placement of all "wires" (Article 26 § 23-7 of Baltimore City Code). Other areas of the City have no such restriction and allow for aerial placement via existing poles.

Please identify unique ordinances, rules, policy statements, and other legal measures specific to your community that Google would have to comply in developing a fiber project:
If a Developer's Agreement is required, a percentage of the installation cost would apply. The City's Minority and Women's Business Enterprise (M/WBE) program is applicable when the City enters into contractual agreements to provide services. In addition, the city requires pre-qualification of contractors on large-scale infrastructure projects.

6. Construction methods

Has your community worked with, studied, or evaluated the following types of construction methods for fiber to the home networks:

√ **Aerial**
√ **Trenching**
√ **Boring**
√ **Micro-trenching**
√ **Plow**
√ **Rock saw**
√ **Other**
   None

Check approved methods of construction for your community: *

√ **Aerial**
√ **Trenching**
√ **Boring**
√ **Micro-trenching**
√ **Plow**
√ **Rock saw**
√ **Other**
   None

Are there other construction methods that are approved for use in construction of fiber to the home or other telecommunications networks in your community? If so, please list them below:

Under-water

7. Regulatory issues

Please describe the local regulatory obligations that would apply to Google if this project went forward in your community: *
The following agreements may or may not apply depending on Google's approach to bringing fiber to households: developer's agreement, conduit agreement, and franchise agreement. The City's M/WBE Enterprise program might apply.

Please describe local business obligations and taxes/fees, if any, that would apply to Google if this project went forward in your community:
Owners of fiber could be required to pay personal property tax. Google would be required to obtain all necessary permits, licenses and other forms of approval necessary to lease, construct, maintain or repair the conduit running Google's fiber.