



# OPENCAPE

Creating Regional Broadband Opportunities

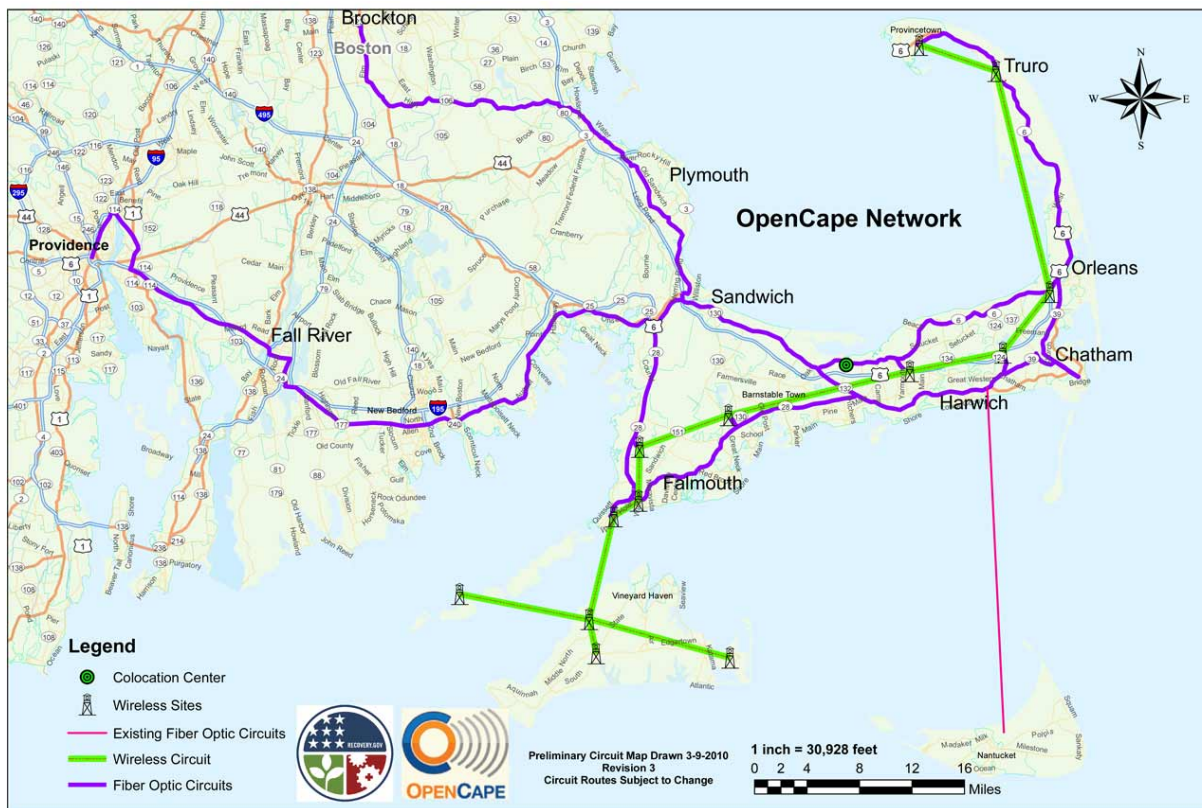
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## OpenCape Background

The non-profit OpenCape Corporation was awarded a \$32 million Broadband Technology Opportunity Program (BTOP) grant by the National Telecommunications and Information Administration (NTIA) from American Recovery and Reinvestment Act (ARRA) stimulus funds on February 28, 2010. The \$32 million BTOP grant will be combined with matching funds totaling \$8 million from the Commonwealth of Massachusetts, a private construction/operating partner(s), and Barnstable County to construct a comprehensive middle mile communications network to support the economic, educational, public safety and governmental needs of the southeast Massachusetts region.

OpenCape is using the funds to construct a core fiber optic backbone on Cape Cod with extensions to two major regional network connection centers in Providence and Brockton, a microwave radio overlay that includes Martha's Vineyard, and a regional collocation center in Barnstable Village. These three elements combine to provide a robust, high capacity communications infrastructure for the region.



### Need & Vision

**Economic.** Cape Cod and the Islands need ubiquitous, reliable, redundant, and cost competitive telecommunications infrastructure to support economic diversification in a region that has a currently unsustainable economy. The region seeks to create the necessary underpinning technology infrastructure to support the growth of its innovation sector and its entrepreneurial culture. In addition, the OpenCape network will support expansion of services into the communities of the South Coast.

Cape Cod and the Islands have seen limited investment in middle mile infrastructure largely because the population density is insufficient to deliver a return on investment consistent with traditional provider models and share holder demands. The proprietary nature and closed access of the limited fiber optics in the region create a further barrier to entry for last mile providers. The result is a lack of competition that in turn results in a lack of availability of broadband in low density areas, inadequate capacity, and a high cost of service for consumers and anchor institutions. The infusion of government capital offsets the greatest barrier to entry for last mile providers regardless of size or technology employed. The OpenCape business plan and partnership model ensures an open access and competitive model will be sustained over time.

**Public safety.** The Cape and Islands region requires the robust and redundant communications network of OpenCape to support public safety in both day to day operations and in crisis. OpenCape will link public safety officials within a wide area network and support a 700Mhz wireless mobility network for vehicles in basic functions such as communicating with Cape Cod Hospital during a patient run from Provincetown. OpenCape will also support much broader community needs for more robust public safety communications during frequent storms and potential hurricanes.

**Anchor Institutions.** The many anchor institutions of the region, such as the world-class research institutes of Woods Hole, regional medical facilities, public colleges, school districts, municipalities, and libraries have participated fully in the definition of need and the development of solutions. Barnstable County has partnered with OpenCape and identified the network's construction as a top priority for meeting goals such as the creation of a regional umbrella service model for towns and school districts in the region. OpenCape's ongoing interactions with executive departments of the state government are also ensuring that the Commonwealth's direct interest in building a statewide network are addressed.

### ***Regional Commitment***

The OpenCape concept is widely supported throughout the region and the state. The towns and school districts on Cape Cod and the Islands have submitted letters of support for the effort. Seed funding was provided by Barnstable County, the John Adams Innovation Institute, the Massachusetts Broadband Institute, Woods Hole Oceanographic Institution, and Cape Cod Community College. The Cape state legislative delegation successfully increased the Broadband Bill Incentive Fund to \$40 million within the Massachusetts legislature to create a resource for construction of the network. The federal legislative delegation has provided letters of support, as well as essential liaison with federal agencies in securing BTOP funding.

### ***The OpenCape Network***

The OpenCape proposal consists of a core fiber backbone on Cape Cod with extensions to two major regional network connection centers in Providence and Brockton, numerous fiber optic laterals extending off of the backbone, a high capacity optical transport system, a microwave radio overlay, and a regional collocation center. All of these elements combine to provide a robust, high capacity communications infrastructure. Fiber optic based services will range from traditional bandwidth based offerings to dedicated wavelengths of light to dark fiber leases. The OpenCape collocation center will serve as the focal point of network operations and provide leased collocation space for public and private organizations in the region.

OpenCape will connect over 70 anchor institutions to the network using laterals as part of its initial build-out. Highlights of these include twelve emergency shelters (schools), thirty libraries, five colleges, six academic research facilities, and eighteen town or public safety buildings. The OpenCape path also permits many additional anchor institutions the ability to rapidly obtain service from the network including seven hospitals, two additional higher education institutions, eight additional libraries, ten county, state or federal institutions, five commercial/industrial centers, and potentially over 270 public safety and educational facilities.

The cost of commercial middle mile service will be significantly lower than is currently offered in the region, and in addition, non-profits and government entities will receive a deep discount for all network services.

### ***OpenCape Funding***

The total project cost is \$40 million. OpenCape Corporation's \$32 million Broadband Technology Opportunities Program" (BTOP) grant was awarded by the National Telecommunications and Information Administration (NTIA) on February 28, 2010 under its authority within the American Recovery and Reinvestment Act (ARRA) of 2009. OpenCape has secured commitments for \$8 million in matching funds from the Massachusetts Broadband Institute (\$5 million), private construction/operating partner(s) (\$2 million), and Barnstable County (\$1 million).

### ***Sustaining Business Model***

OpenCape Corporation will own the physical assets of the network, share in the success of its licensed private operator, and use its revenues to support further network expansion and application development for the benefit of the region. OpenCape will issue requests for proposals (RFP) in Fall 2010 in order to select a primary operating partner through a competitive process. OpenCape has chosen to combine its regional understanding and mission with a partner's existing capabilities, drawing on the strengths of an established middle mile operator.

### ***Immediate and Long Term Jobs Impact***

The OpenCape project will create 233 jobs in the equipment, construction and manufacturing sectors and an additional 194 indirect jobs. In addition to these direct and indirect jobs associated with the construction and operation of the network, there is the greater long term impact on the broader economy. OpenCape is an essential element of regional economic diversification planning by Barnstable County and business organizations.

### ***Organization***

OpenCape has been driven by grassroots volunteers since its inception in 2006. A steering committee eventually became the non-profit 501(c)3 OpenCape Corporation Board of Directors. The Board reflects the community functionally and geographically. In July, 2010 OpenCape Corporation appointed Daniel Gallagher as its Chief Executive Officer. A Construction Manager to monitor contractor construction of the network and an Administrative Assistant will be added to the OpenCape staff in August, 2010.

### ***Timeline***

OpenCape is deeply involved in the development and negotiation of essential contracts, the refinement of engineering, and the completion of an Environmental Assessment. Construction is expected to begin in the Fall of 2010. OpenCape must complete the construction phase by January, 2013.