



OPENCAPE

Creating Regional Broadband Opportunities

PO Box 762 | West Barnstable, MA | 02668-1599

(888) 253-2561 V | (508) 375-4162 F | info@opencape.com | www.opencape.com

FREQUENTLY ASKED QUESTIONS

What is OpenCape?

OpenCape is a concept and plan to address the need for broadband infrastructure in the Cape Cod region. The OpenCape Corporation is the nonprofit corporation that was formed three years ago to lead the effort. The OpenCape Board represents the region both functionally and geographically. Its goal is to support the region's business and economic needs by spurring the development of critical 21st century infrastructure.

What is the NTIA BTOP grant?

OpenCape proposed a \$40 million project under the federal Broadband Technology Opportunity Grant (BTOP) program of the American Recovery and Reinvestment Act, managed through the National Telecommunications and Information Administration (NTIA), which is part of the Department of Commerce. The grant includes approximately \$32 million in federal funds and \$8 million in matching and in-kind funds from the Commonwealth of Massachusetts, RCN Metro Optical Networks, and Barnstable County.

What is OpenCape building?

OpenCape is building what is called "open access, vendor neutral, middle mile capacity." That means it is building the central highways over which data travels across the region. OpenCape is not delivering service to individual users, but its middle mile capacity will enable different companies to create products and services to meet different needs.

What exactly does the project include?

The project includes three elements: fiber optic cables, a microwave wireless network, and a regional data center

Fiber: The project is installing about 300 miles of fiber along its primary path and about 50 miles of laterals to 70 anchor institutions. The primary path will be from Providence to Provincetown with another major spur running from Cape Cod to Boston via Plymouth and Brockton. A lateral is a fiber connection that runs from the main network into a specific location to provide direct service to an institution or group of institutions.. Anchor institutions, sometimes called "strategic institutions" are large regional organizations, such as hospitals, libraries and schools, that serve many people and community needs.

Microwave: There is also a wireless microwave network that supports and provides backup for the fiber network, but is focused on public safety applications.

Data center: The regional data center provides connectivity and power infrastructure for safely housing servers. There are currently no datacenters on the Cape.

Who will build and operate the system?

The OpenCape model uses a powerful public-private partnership to build and manage the network. In 2009, OpenCape chose RCN Metro Optical Networks as its partner to construct and operate the network.

Why did OpenCape choose RCN Metro?

OpenCape wanted an experienced partner with a track record in building and managing middle mile networks, who was also committed to the region. OpenCape selected RCN through a competitive process. RCN is an experienced facilities-based fiber optic provider with a full suite of communication services. The company's core business is building, managing, and supporting networks and collocation facilities, and managing relationships with vendors and local service providers.

Why was RCN Metro interested in Open Cape?

RCN Metro saw an unmet business need that could not be met by traditional telecommunication return on investment (ROI) standards. It was interested in developing new models and saw that with OpenCape's grassroots and community-driven structure there was an opportunity to both do business and collaborate on a public-private solution to fill a market need.

What does this relationship represent?

The relationship is an example of the public-private partnership that the federal stimulus funds hope to encourage, combining public and private investment, and regional and business know-how to develop needed digital infrastructure to support regions in this digital century.

As a Service Provider is RCN Metro given an unfair advantage by managing the network?

No. The OpenCape network is open access and vendor neutral. . OpenCape has taken several steps to ensure no one vendor can monopolize the resource. OpenCape will retain ownership of the resource and control the allotment of fiber in such a way that it will always maintain a competitive model. In addition, RCN Metro already derives 55% of its revenue from providing access to fiber and high-speed bandwidth services to other companies. This enabling expertise, combined with an open access middle mile will only serve to promote competition.

When is this all happening?

Projects funded with stimulus money need to be substantially completed within two years and fully completed within three. The design and engineering has largely been completed and we anticipate construction beginning in early 2010, with components coming online as they are completed and the entire network functional by 2012.

What technology is involved?

The network is fiber based with optical wavelengths layered on top. The network will offer virtually unlimited bandwidth to meet the regions needs today and scale to meet future needs. RCN has designed

the network with multiple 10-gigabit wavelengths that will grow as demand increases and technology advances to 40GigE and 100GigE in the future.

What are some specific examples of how people will benefit from this network?

Healthcare:

Hospitals and healthcare organizations have complex networking needs. The trend to smaller local medical offices supported by central experts increases the demand for real time no loss connectivity. OpenCape will connect systems and applications for continuous transfer of images like x-rays and MRIs. With the move to paperless records and massive amounts of data archiving to ensure HIPAA compliance a network infrastructure is required that has reliability, speed and bandwidth as well as one that can adapt to new technologies and regulatory requirements. The hospitals of southeast Massachusetts jointly supported the OpenCape project as a resource to advance their common goals.

Education, Research and Libraries:

Higher education is increasingly focused on serving the needs of students and faculty with distance learning, video streaming, data transport, Internet access and real-time communication. Colleges and universities require scalable networks to meet shifting bandwidth needs throughout the year. Because RCN Metro Optical Networks has connections to multiple carriers throughout New England, institutions will have the flexibility to choose service providers on an application-by-application basis and increase the number of services that can be offered to students and staff. The CONNECT consortium of public higher education institutions in southeast Massachusetts will have tremendous opportunities to collaborate.

Municipal Government and 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'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.

Economic Growth:

An open and robust data infrastructure is a critical element in the 21st century economy. Regions without this infrastructure will be left out of the economic mix, much as happened to communities who were bypassed by economic infrastructure of the past, such as railroads and highways. With its high percentage of micro-business and a growing national trend of virtual workers, combined with the slumping of traditional fisheries and tourism, the Cape region needs such an infrastructure in order to transition into a more diverse and sustainable economy.