

**SMARTERCAPE**  
**Government Services Component**

**Regional Umbrella Services System**

The SMARTERCAPE Partnership, enabled by the OpenCape telecommunications infrastructure, is supporting the development of a Regional Umbrella Services System (RUSS) to support counties, municipalities, school districts, libraries, public safety, and other public sector entities in the development and delivery of regional information technology solutions and services.

RUSS will take advantage of the OpenCape Municipal Regional Area Network (Municipal RAN) and Regional Collocation Center (RCC) to enable local and regional public sector entities to aggregate communications service purchasing and develop regional applications. Aggregated services may include Internet and Internet2 access and long distance telephone service. Initial shared regional applications may include the Regional Geographic Information System (Regional GIS), Regional Permitting, Licensing and Inspections Solution (E-Permitting), the Cape Cod Strategic Information Data Warehouse, and Shared Assessor Databases.

Underpinning Infrastructure – OpenCape

OpenCape is creating a Municipal RAN for the county, municipalities, schools and libraries of Cape Cod and the Islands as part of the OpenCape project. The Municipal RAN uses fiber optics on Cape Cod to create a 1Gbps shared circuit within each town that is part of a higher capacity regional network that terminates at the RCC. A microwave link to Martha's Vineyard, and leased undersea fiber optic capacity to connect Nantucket will be used to permit communities on the Islands to gain access to the Municipal RAN. The Municipal RAN shall also provide an aggregated 1Gbps Internet connection for the shared use of all public entities in these communities.

OpenCape is creating the RCC in the former Barnstable County Public Safety Building as an integral part of the OpenCape system. This facility will include a ground floor 2500sqft Regional Collocation Data Center within which 100sqft is reserved for the installation of servers and equipment associated with the development of regional government applications. OpenCape will provide and install server equipment within the space to support the regional government applications. The third floor of the building will serve as an operations center for the development of regional umbrella services.

Capital Costs

OpenCape is absorbing the entire capital cost of constructing the underpinning infrastructure to include fiber optic connections and associated equipment to nearly seventy (70) town hubs, schools, libraries and water towers as interconnection points to the Municipal RAN. OpenCape is also absorbing all costs associated with the RCC and the initial outfitting of server equipment to deliver regional government applications.

## Development Costs

The creation of a new model of aggregated services and shared regional applications requires leadership, collaboration, and hard work. The SmarterCape Partnership and other stake holders are taking the lead in this regard. However, there are also financial costs associated with implementation to include software licensing and configuration. The SmarterCape Partnership is seeking funding from regional and state funding sources to address this requirement.

## Operating Costs

The Operating costs of the Municipal RAN, the ongoing cost to operate, maintain, and administer the application servers and associated equipment, and the implementation and ongoing support for applications must be absorbed by the County and towns that receive services.

An Enterprise Account is proposed to be established by Barnstable County to pay for the Municipal RAN service as well as any additional application costs associated with the RUSS. Two potential models are under consideration for payment of the Municipal RAN and application costs:

1. Barnstable County pays the full cost of the Municipal RAN and other potential applications. It creates an Advisory Committee from the towns to help with decision making related to the RUSS services.
2. Barnstable County pays the bills, but collects funds from the towns under an inter-municipal agreement and pays for the operating costs associated with the RUSS. Included within the costs shall be the Municipal RAN service and any costs associated with an application to which a community subscribes. The allocation of costs to towns shall be based on the existing Barnstable County Assessment model, which uses population as the basis of its formula.

It is anticipated that these costs will be offset by a number of factors such as the elimination of other services. Reduction or elimination of existing Internet connections, inter-building connectivity costs (e.g. T1 lines), and potentially telephone service will play a large role in reducing costs. However, the true efficiencies will come from the aggregation and consolidation of telecommunications, network and Internet services, and common applications within a community and across the region. Independent and isolated services currently purchased by departments independently will be rolled into a single service for all departments with a single expense line item. Currently, these services are purchased independently by municipal, school, public safety, and other departments.

Subsidies such as the Universal Service Fund (ERate) to which schools and libraries are eligible may also play a role in offsetting these costs. School departments on the Cape are generally eligible for a 40-50% ERate subsidy for telecommunications and Internet services based on the percent of students eligible for free or reduced lunch. Schools are expected to use approximately 50% of the capacity of the Municipal RAN for Internet and Internet2 access.

Hence, an ERate subsidy of 20-25% may be available to communities for the cost of the Municipal RAN services.

### Governance

It is essential to the success of the RUSS that an appropriate decision-making and operational organization model be created. An advisory or governance committee will be created with representation from each town, Barnstable County, the Cape Cod Commission, CLAMS, and OpenCape to provide policy level decision making with regard to services and funding related to the RUSS. That body will further identify appropriate operating resources for the operation, maintenance and administration of equipment and applications from within the represented entities or through outsourcing.