

## **Chilmark – THE POWER OF NETWORKS**

Networks are transformative. They enable a community to engage broadly among departments, with surrounding communities, with regional bodies, and with other regions to deliver better services to citizens more efficiently.

If Chilmark is content to just do business as usual, as costs rise and citizens demand more services and greater interactive engagement with their government, there is no need to look at things differently.

If Chilmark is interested in developing networks to deliver better services to their citizens more efficiently it should consider the potential of networks:

Municipal Wide Area Network (WAN): the consolidation of town departments within a WAN offers significant opportunities for better, more reliable, and more efficient telecommunications and data services. Aggregation of services and the sharing of applications across the WAN creates opportunities for reduced costs, better and new services to citizens, and improved town and school district administration.

Backhaul Services: Key to any network is its further connectivity to the Internet. Martha's Vineyard, as an island, faces particular difficulties in this regard as it is remote and isolated. Communications reliability is largely the result of good service providers, redundant systems, and diverse pathways (both geographic and technically diverse). Multiple providers, using diverse infrastructure and diverse technology, are key to ensuring the availability and reliability of telecommunications and data services in normal and crisis situations. Multiple providers also provide for cost competitiveness

Martha's Vineyard Regional Area Network (MV RAN): The aggregation of services among the six towns of Martha's Vineyard is valuable. Better and more efficient services can be provided if the six towns work together over a common regional network. The rationale for common 911 dispatch on the Island can be extended to many other functions of government. Key to all of this is a common network.

OpenCape Municipal Regional Area Network (Muni RAN): 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 one gigabit-per-second (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 and an Internet2 connection for use by schools and libraries.

The Muni RAN is very powerful and offers opportunities for Chilmark and the towns of Martha's Vineyard. See the attached document on Smarter Government.

Commonwealth of Massachusetts Networks: The Commonwealth of Massachusetts provided \$5 million in funding to the OpenCape \$32 million grant application as a match. OpenCape is providing the Commonwealth with 10 strands of fiber throughout its network. The Commonwealth intends to use the OpenCape network as the southeast portion of a statewide network through which common applications and services will be provided. It will be advantageous for towns to be able to connect to this network.

Economic Development: Business in the 21<sup>st</sup> Century is reliant on available, stable, and reliable telecommunications. Whether the large corporation or the small bed and breakfast with an online reservation system, reliable communications are essential to the business. More providers, diverse paths, diverse technologies, in a competitive pricing environment is good for business. Reliance on a single vendor for all services is a major mistake for both reliability and cost reasons. Governmental leaders should be working toward advancing as many pathways, technologies and service providers as possible to create the best possible environment for business.

Chilmark First Steps. The Town of Chilmark has an asset in the Peaked Hill Coast Guard Rescue 21 monopole tower. The Town has rights to use the tower for public safety related activity. The Town should initiate action to acquire collocation space on the tower and in its supporting shed for use by the town. The Town should also take action to connect its Municipal fiber WAN to the tower property. As a follow on action the The Town should develop and implement a plan to:

1. Acquire Internet Backhaul connectivity from the tower. OpenCape is a likely opportunity to acquire this backhaul service, but it does not have to be the only provider, but is preferred because it will also provide connectivity to the OpenCape Municipal RAN and the state network on the mainland.
2. Create a point-to-point link to the Dukes County Sheriff. This link could serve 3 potential purposes:
  - a. Intermediary stop to the OpenCape Municipal RAN. Thus supplanting the need for item 1.
  - b. Links Chilmark public safety over the Chilmark WAN to the tower, and on to the Dukes County 911 dispatch center.
  - c. The Peaked Hill Tower could then also be used as a relay point for further connectivity to west Island police stations using point-to-multipoint technology.