



# NH FastRoads Future Infrastructure Now

Energizing the Region

## The need for big broadband

The FastRoads project is a collaboration of the New Hampshire Community Development Finance Authority, the Monadnock Economic Development Corporation, the thirty-four towns of the Monadnock region, and WCNH.net (the eight towns of the Upper Valley-Lake Sunapee region).

The goal of the effort is to help ensure that the businesses, institutions, and residents of the region have the right infrastructure to support jobs and sustainable economic development. The availability of affordable, "big" broadband infrastructure has become an essential component of a viable economic development strategy in rural areas.

The towns and cities of the area offer an excellent quality of life, a relatively low cost of living, and superb recreational activities. The area is also located within reasonable distances of major urban areas. Widespread availability of business class broadband has the potential for accelerating economic development in the area while maintaining the great quality of life and without the risks of over-urbanization.

### High speed broadband is essential

A wide variety of products and services that were formerly delivered by rail and by truck are now delivered at much lower cost by digital transportation systems (typically fiber or wireless networks). Heavy products like music (vinyl records or more recently CDs) formerly required

massive warehousing and freight costs to get product to a customer. Movies, which were formerly sold on bulky VHS tapes or DVDs, are now watched on demand via broadband transport networks. Today, the world's largest music store (Apple's iTunes Store) delivers millions of songs and movies per day over an entirely digital transportation system—the Internet.

### Local government should not compete

Local governments supporting the FastRoads effort will NOT sell any telecom services to businesses and residents. All business and residential services on the FastRoads network will be provided by private sector providers, and all incumbent providers are invited to use the network to deliver services in areas where it is too expensive to build their own fiber. The FastRoads network will create enormous private sector business opportunities.

### Fiber is the new road system

We can manage telecom just the way we manage roads, which is a mature and time-tested public/private partnership. Communities build and maintain roads, but private sector businesses use those roads to sell goods and services directly to their customers. Voice telephone services, TV, movies, and Internet access can all be delivered over a single fully integrated digital road system. But most homes and businesses still lack affordable, "big broadband" network connections needed to deliver these services. The average bandwidth being used by business and residential customers has



## KEY IDEAS

### 1 HIGH SPEED BROADBAND IS ESSENTIAL

The region needs better "big broadband" digital roads for jobs and businesses.

### 2 LOCAL GOVERNMENT SHOULD NOT COMPETE

The network should create private sector business opportunities, not expand local government.

### 3 FIBER IS THE NEW ROAD SYSTEM

Fiber is a high capacity long term transportation infrastructure asset.

### 4 SEPARATE SERVICES AND INFRASTRUCTURE

Separating infrastructure from the services sold creates true competition and lower prices.

### 5 INFRASTRUCTURE FUELS ECONOMIC GROWTH

A fiber-rich regional transportation system will energize economic development and create jobs.

### 6 WORK ANYWHERE

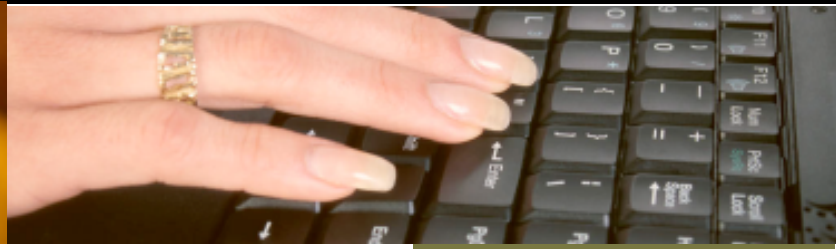
Fiber everywhere enables new job opportunities without long commutes, reduces road maintenance, and lowers energy use.

### 7 CONNECTED DOWNTOWNS

Fiber brings businesses back to downtowns.

### 8 LIVE ANYWHERE

A high performance digital road system spreads growth throughout the region sustainably.



been doubling consistently every two years, and the copper telecom infrastructure throughout the region is not adequate for future needs.

**Separate services and infrastructure**

The FastRoads business model of completely separating infrastructure from telecom services will create competition and lower prices. This approach is fundamentally different from the way telecom networks have been built and managed in the past. This model works because all providers share a single high performance digital road network. In a multi-service network, each category of service (e.g. telephone, TV, Internet access, telemedicine, video on demand, and more) has multiple service providers offering many different service packages and bundles at a variety of price points.

**Infrastructure fuels growth**

The history of economic development has been written largely around the availability of the right infrastructure being available for business at the right time. Today, even small Main Street retailers make heavy use of the Internet to market online, take customer orders, process credit card purchases, and to provide customer service. Every business is now, by necessity, a high tech business. High reliability fiber connections are not a luxury but a business necessity.

**Work anywhere**

There is a growing trend for entrepreneurs and professional business people to make relocation decisions based on two factors: quality of life and broadband availability. With the right digital transportation system in place, businesses can be started or grown wherever the entrepreneur wants to live—

downtown Keene or Hanover or in the many fine small towns like Dublin, Enfield, Alstead, or Antrim. Home-based workers reduce or eliminate commuting to work, reducing wear and tear on local roads, and improving their quality of life with more time for family and recreational activities. With the right digital road system in place, neighborhoods and rural roads become business districts.

**Connected downtowns**

Not all businesses can be located in the home, and many business start ups and entrepreneurial ventures are making location decisions based on access to business services and amenities. Downtowns can come back to life by installing fiber to buildings and including development of Class A office in downtown revitalization plans. Communities that have done so have had substantial success in attracting new retail businesses. Downtown revitalization can be accelerated by leading with a focus on fiber and business office space. The influx of new professional workers in downtowns then attracts new retail businesses, restaurants, and professional services.

**Live anywhere**

By building a world class digital transportation system to every home and business over the next decade, the region can leverage the superb quality of life and outstanding recreational opportunities that already exist throughout the area. Families and businesses can pick and choose from a wide variety of community environments.

**CURRENT ACTIVITIES**

- The FastRoads partners are developing a broadband stimulus funding request. If funded, it will provide for a substantial north to south fiber backbone connecting more than a dozen towns.
- The state’s universities need more bandwidth to support research. FastRoads is working vigorously to find ways to provide low cost, high performance dedicated bandwidth for science and research.
- FastRoads is planning to work with local communities on self-help fiber projects. Local communities can easily and affordably help build their own fiber networks that will become part of FastRoads.
- FastRoads is working with economic developers throughout the region to identify major employers with bandwidth shortfalls. Network construction will be prioritized to get broadband services to these employers as fast as possible.
- FastRoads is carefully studying regional broadband networks that are operating in other parts of the U.S. to identify best practice in network design, network management, and financial management.
- Over time, every home, business, and institution in the region that wants broadband services will get a high performance fiber connection.