

**Speical Meeting Minutes**  
**Dover Town Hall**  
**November 3, 2016**  
**6:00 PM**

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*THESE MINUTES ARE NOT OFFICIAL UNTIL THEY HAVE BEEN APPROVED BY THE DOVER SELECT BOARD*

Present: Randall Terk, Victoria Capitani, Linda Holland, Tom Baltrus, Joe Mahon, Jeannette Eckert, Jim McDevitt, Phil Gilpin Jr., Phil Gilpin Sr., Ken & Joan Black, TJ Sibilia, Randy Johnson, Tim Dolan, Jeff Austin & Jeff Smith, Cliff Duncan, Rebecca Duncan, Doug Duncan, Laura Dobbin, Jan Terk, Royal and Ned Wilson, Gene O'Neil

Fairpoint Communications will give a presentation on gigabit Internet in Dover on Thursday, November 3, 2016 at 6:00 PM at the Dover Town Hall, 189 Taft Brook Road, Dover, VT. This is a result from their study to develop gigabit level fiber throughout Dover. All are welcome.

I. Fairpoint Presentation

Ken Black called the meeting to order at 6pm & introduced Jeff Austin and Jeff Smith from Fairpoint to present on the results of the completed study

- Building a fiber optic network to the home, to the pole, neighborhood, different connection points and tiers of service
- Get a sense of where all this is going
- Bandwidth in Dover is relatively limited
- How can we compete and attract businesses to come to Dover? And potentially provide jobs here
- Would be beneficial to residents and business owners alike
- Don't really have anything other than a digital pathway to offer; no rail service, highway or waterway
- Study was done to help us understand how we can implement the services available
- Next step would be to solicit bids from other interested parties

Jeff Austin & Jeff Smith:

- Presentation will talk about broadband, bandwidth, speed, uploads, downloads & what applications you are using
- Provide broadband to Dover currently
- Sample cables/fiber ribbons--72 fiber ribbons—very high speed
- 200 pair copper cable=400 wires—the closer you are to it, the faster the speed will be
- Fairpoint is represented in 17 States—Vermont makes up 23% of service—a substantial part of Fairpoint's service
- Broadband service has increased to 93% in 2016
- \$100 million spent since 2008 on expanding broadband service
- 300 connections to cell towers—cell towers are also connected by fiber
- Dover has a Central office, most towns have a Central office
- Have internet connections going into Portland, Albany, Boston
- Paired with Netflix to make it a more enjoyable experience
- Ultimately talking about technology and what can you get out of that
- Offer carrier Ethernet service; symmetrical and asymmetrical
- Normal browsing involves 18 times more download than upload
- How much bandwidth do certain applications take?
  - Email: minimum download speed .5 Mbps
  - General web browsing, educational videos, phone calls—up to 1Mbps
  - Video is big—a lot of our traffic is video downloading, on demand
    - Standard video streaming—.7 Mbps

- Movies—the better the bandwidth, the quality you get
  - High definition—4 Mbps download
  - Ultra high definition—25 Mbps download

Ken Black: We need to be thinking about what the Town may need in the future; how much bandwidth will be needed for teleconferencing, telemedicine etc.; Design a service that is available in the future in Dover; second homeowners who live in NJ, NY etc. are probably already experiencing this...How can we bring it to Dover?

- Exponential increase in virtual reality technology in the last few years—potentially need more bandwidth
- FCC definitions of broadband:
  - In 2010, 4 Mbps download, 1 Mbps upload
  - In 2014--10 Mbps download, 1 Mbps upload
  - In 2015--25 Mbps download, 3 Mbps upload
- With fiber connection: symmetrical (download and upload are the same), asymmetrical (download and upload are different) (25, 50, 75 Mbps)
- Not everyone needs a gigabit today
- Updating equipment
- Real time audio and video
- Combine Netflix and Google—55% of traffic on Fairpoint
  - A lot is for entertainment purposes; streaming video/audio
- Central Office in West Dover does not have an internet connection but connects to the Burlington or White River Junction Central Offices
- In 2016, 190 remote terminals are being built—broadband signal is generated at the remote terminal
- Fiber to the curb—getting even closer to a neighborhood; bring fiber all the way out to a location—up to 100 Mbps potential
- By extending fiber and upgrading or deploying new RTs (remote terminals), service often can be delivered over a greater area and or available speeds increased using both technologies
- 500 Central Offices in Fairpoint's network
- Local presence here in Dover
- Dover falls across 2 service area boundaries: West Dover and Williamsville (East Dover)
- Most homes are served from Central Office and 5 remote terminals
- Handful of homes are served by remote terminal in Wilmington
- Recent upgrades to Mt Snow and Valley View Rd
- Fiber to the premises—build out of copper services
- Speeds of 25mbps are now available near the Central Office
  - 15 Mbps is within about 7000 feet of a remote terminal
  - Offer bonded service which ultimately gives you two 15 Mbps that is connected into one modem
  - 2 additional upgrades on Ellis Brook Rd and Dover Hill Rd
- 15 miles of fiber in West Dover, East Dover
- Carrier Ethernet network—up to 1 gigabit; symmetrical service
- Certain equipment is needed in the Central Office to offer Carrier Ethernet which Dover has
- Speed eligibility in Dover
  - 25 Mbps: 14% of folks in Dover qualify
  - 20 Mbps: not many
  - 15 Mbps: 20%
  - 10 Mbps: 9%
  - 7 Mbps: 21%
- Do have areas in Dover that are not served---smaller percentage
- Nov 2015: 63% of people qualified for 3 Mbps

- When more than one person is sharing the bandwidth, 25 Mbps, each user is competing for that small piece of the pie; only when downloading it becomes more difficult
- Wireless modems/routers—rely on terrain and cell tower coverage
- Fairpoint doesn't run a wireless spectrum like AT&T or Verizon
  
- Exponential increases by the FCC broadband requirements
- Standard is increasing by a much faster rate than the technology can keep up
- Map shows what can be done without too much capital investment into equipment
  
- Residential subscriber analysis
  - Most who qualify take 3Mbps
  - About ½ take 7Mbps
  - 10 Mbps is a fairly newer service
  - 15 Mbps has some popularity, about a 1/3
  - 20 Mbps, 25 Mbps have limited availability
  - Options are becoming more available
  
- Copper networks:
  - Fiber to the curb (FTTC)—from the pole or pedestal
  - Fiber to the premises (FTTP)—right to the house
  - There are benefits & challenges for both
  
- FTTC: Potentially 5 remote terminals to provide high speed service in the Town Hall area
  - Every ½ mile in more rural areas
  - Can be very, very expensive process; a lot of copper
  
- FTTP:
  - Fiber splitter
  - No copper involved; optical network terminal (ONT)
  - Multi-unit dwellings
  
- Exists in Southern NH and Southern Maine for years
- Aerial or underground connections
- Cost balances long term investment
- One time build; may have to change equipment but the fiber is in place
- 15 miles of fiber in town already which will be utilized
- Fairpoint is a pole owner in town
- Put fiber on existing equipment; much of it is in place already
- Ethernet based service that would be provided
  
- Fiber distribution cabinets
- Will things change? What are the elements that will be put out there that you may or may not notice?
- FTTC is more time consuming to build
- FTTP is more efficient and economical
  
- 15 miles of fiber is a significant amount on highways and roads; however significant amount of new fiber will be needed
- We looked at what was the most cost effective and the most bang for the buck
- Informational rather than a sales presentation

Joan Black: If given the go ahead, when would it be completed to the entire town?

Jeff Austin: Within a year

Phil Gilpin Jr: Is the price point going to be the same as it is in the city? How does it compare to Bennington/Stratton?

Jeff Austin: Rates are pretty standard in this area; strategy will have to be priced at reasonable rates; Ken will be developing an RFP for it; it will be comparable to city rates for the same high speed

Ken Black: Will get into the numbers in several weeks

TJ Sibilia: Price point; some protections built in?

Jeff Smith: Obviously subject to change; Prudent question for the Town to ask as it will be contributing to the cost

Ned Wilson: At the Inn, kids are using the internet for movies/videos, no one watches cable anymore; are you going to consider providing this for the entire community? There will be numerous networks providing video

Jeff Smith: Netflix uses the most bandwidth across the network; should not see a slowing in service; Systems are scalable to keep up with the bandwidth

Tom Baltrus: Fully fiber deployed in the town; to become an internet customer? Call Fairpoint?

Jeff Smith: Options are available to get service to your home—aerial pole to the home or conduit Costs borne by Town, end user, provider?? Something for the Town to consider

Use a third party to install the wiring? Yes, that is an option

How much land line business will you be losing? Ultimately yes, will lose business, happens when you are competing with yourself

Royal Wilson: Will you offer bundles like other companies for TV, internet, phone

Jeff Smith: Fairpoint doesn't offer TV products; internet based; will never be a cable company

Phil Gilpin Sr.: Any comparable towns in Vermont that are doing fiber to the home?

Jeff Smith: Several towns in Southern NH and Southern Maine; none in VT yet

Phil Gilpin Jr: Local population may not need more than 15? Some people do not know that these speeds are available

Jeff Austin: Will not abandon the copper network; will be part of the Town's decision; not intended to force people to take something they don't want

Ned Wilson: Look at how fast TV took over radio; and how quickly it went from black & white to color; those evolutions took place in a matter of 3 or 4 years

Randy Terk: Fiber to the home, is the actual speed guided by the modem? If I only want 25 Mbps, how is that accomplished?

Jeff Austin: As a subscriber, you decide; Push of a button to change

Randy Terk: Currently have a buried conduit—can another be placed next to it?

Jeff Austin: Sharing the conduit can be done as long as it is intact

Jim McDevitt: Dial tone over fiber optic? Available to the home?

Jeff Austin: Yes, battery backup is provided with FTTP—copper works when power is out

Cliff Duncan: Are there any other communities in VT that you are working on this same type of proposal?

Jeff Austin: Hot button issue, this is our first complete delivery study

Cliff Duncan: What are the rates in the areas where you have deployed the fiber service?

Jeff Austin: We do not have numbers tonight; Portsmouth location is a more competitive area; Burlington telecom's rates are public on their website

Residential standard internet pricing—3Mbps @ \$39.00/mo. 10Mbps @ \$59.00/mo. 15Mbps @ \$63.00/mo. Month to month rack rates; promotional periods do exist

Ken thanked all for coming and the meeting was adjourned at 7:48pm

The Dover Select board will meet following the Fairpoint Presentation to consider an amendment to their Vicious Dog Hearing Protective Order/Decision. The meeting will take place at the Dover Town Hall.

## II. Consideration of Amendment to Vicious Dog Hearing Decision

Called to order at 7:57pm by Chair Randall Terk

Present: Randall Terk, Victoria Capitani, Linda Holland, Tom Baltrus, Joe Mahon, Jeannette Eckert, Randy Johnson

- James Valente, Attorney for James Green, owner of Buckshot, composed an addendum to the protective order for the Board to consider
- Request to place the dog in the care of trainer, Kevin Behan, for attempt at rehabilitation & possible adoption by an authorized person; not by James Green and not in the Town of Dover
- Mr. Green will be responsible for continuing costs as well as payment to the Town for all costs incurred thus far for the dog's impoundment at Layla's. This condition must be met before the dog is released to Mr. Behan.

On a motion by Victoria Capitani, seconded by Linda Holland, the Board unanimously authorized the Chair to sign the addendum on behalf of the Dover Select board

## III. Executive Session to follow presentation

On a motion by Tom Baltrus, seconded by Linda Holland, the Board unanimously agreed to move into Executive Session at 8:04pm

Present: All 5 Board members, Ken Black, Jeff Austin, Jeff Smith

On a motion by Victoria Capitani, seconded by Linda Holland, the Board unanimously agreed to move out of Executive Session at 8:33pm

Decision: Ken will keep the Board updated on the RFP

On a motion by Linda Holland, seconded by Victoria Capitani, the Board unanimously agreed to adjourn at 8:34pm

Respectfully submitted by Jeannette Eckert  
Select Board Recording Secretary

Public notices of these minutes have been posted at the following locations:  
Dover Town Clerk's Bulletin Board, Dover Town Meeting Bulletin Board, Dover School  
Dover Free Library, East Dover Post Office, Town of Dover Website: [www.doververmont.com](http://www.doververmont.com)