



Town of Southampton Ad Hoc Technology Committee



Preliminary Investigation

High speed fiber internet to residential homes and commercial businesses in town

Projected Bandwidth Needs

"from laptops to lightbulbs"



Average household is using...

- **3.5x** the amount of internet data they were five years ago
- **38x** the amount of internet data they were ten years ago

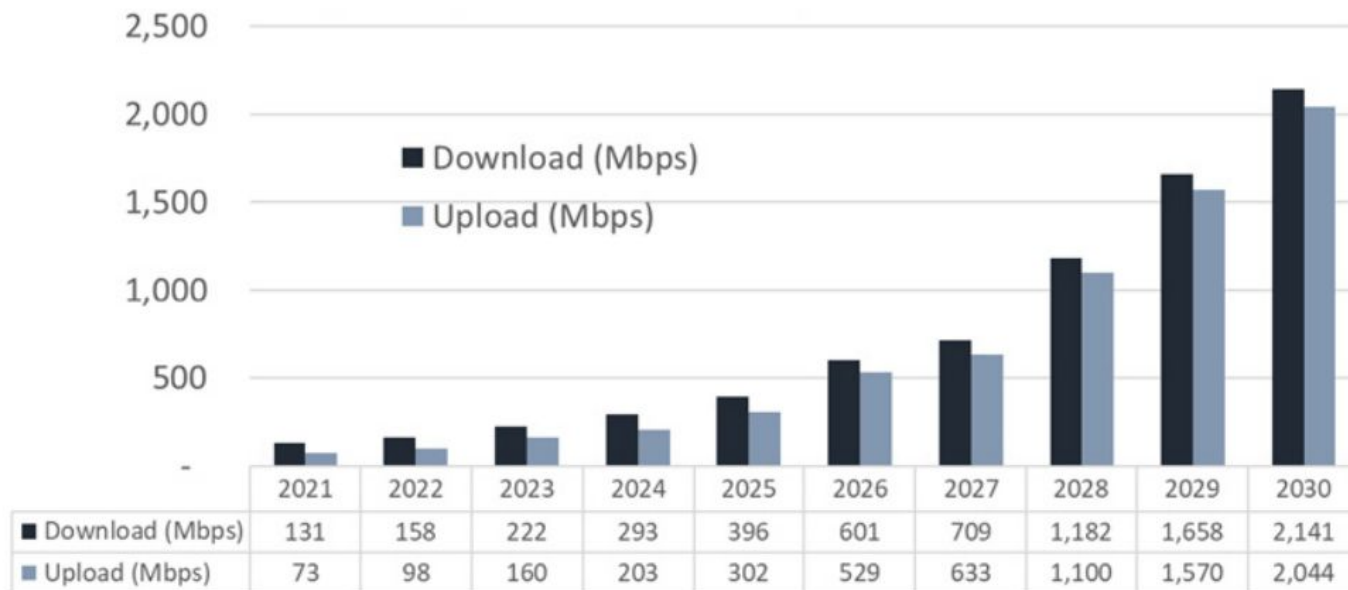
What is contributing to this?

- More people working, shopping and doing business from home
- Increase in streaming services, telemed, smart home devices
- Evolving technology needs in businesses
- Digital educational online curriculum resources
- Expansion of cloud-based services



FIGURE 4

PROJECTED PEAK BANDWIDTH REQUIREMENTS - HOUSEHOLD OF 4



- Does not include Robotics
- Early adopters, Radiologists, Power Users/Gamers, others may require much more

Source: Fiber Broadband Association Technology Committee

Internet Bandwidth Capacity

Coax Cable Bandwidth - (asynchronous speeds)



100 MB download (and higher) BUT can only get 20-50 MB upload speeds
Limitation of coax cable - Not scalable and “shared”

Fiber Optic Bandwidth - (synchronous speeds)



1000 MB download (and higher) AND 1000 MB upload (and higher) speeds
Scalable to 10 GB (10,000MB) download and upload speeds



How do we get Fiber?



Currently limited to one ISP - Spectrum

No plans to build fiber to homes in town

Partner with another ISP via MLP

Municipal Light Plant (MLP) Status

Allows a town to operate its own utilities, including fiber optic networks & form ISP partnerships.

Does not commit the Town to actually implementing the network or paying for anything

Neighboring Towns that have MLP Status:

Westfield

Holyoke

Easthampton

(also many hilltown communities like Chesterfield and Goshen)



Ad Hoc Technology Committee met with local ISPs to review:

- Benefits of MLP/ISP partnership
- MLP application requires 2 Town Votes in separate calendar years
- Engineering and construction considerations
- Current infrastructure
- Backbone and Redundancy

Considerations...

"the future is now"

Multi-year initiative

- Start now, not when you can't stream netflix
- Process for fiber network build out is lengthy...
 - Feasibility Study
 - Engineering
 - Applications / Permitting
 - Make Ready
 - Fiber Construction
 - Splicing

Grant money available

- Targeted at broadband initiatives for municipalities
- Could use this for engineering survey, resident survey, feasibility study to help cost out and build a business model





Next steps...



Grant application for feasibility study and business model development

Further research and evaluation of options

Town MLP Vote

Market Survey / Community Education