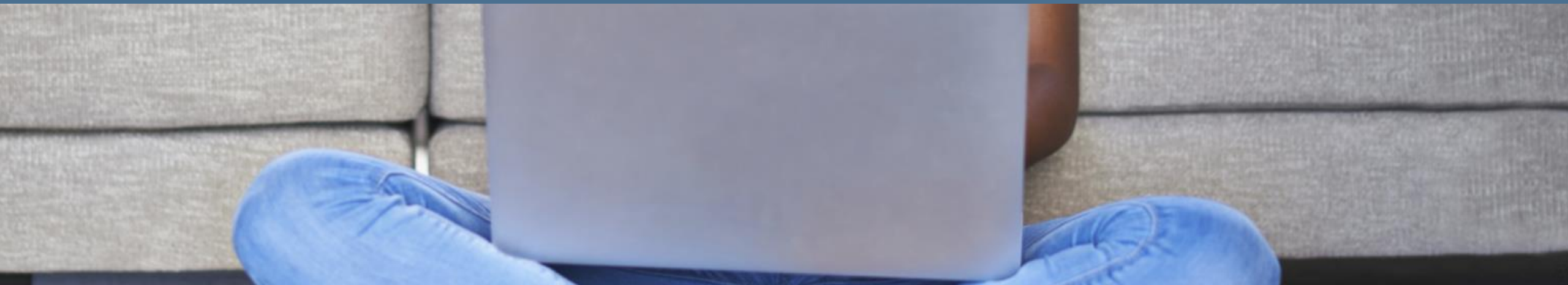High Speed Internet Feasibility Study for the Town of Westport

Prepared in collaboration with the
Westport Internet Advisory Committee
and EntryPoint Networks.

ESSENTIAL INFRASTRUCTURE – DIGITAL ROADS

If Today's Road Systems Worked Like Current Incumbent Broadband Networks

Closed Infrastructure

NETWORK INFRASTRUCTURE AS A UTILITY

Open Broadband Networks or Broadband Infrastructure as a Utility

Open Infrastructure

KEY PRINCIPLES

1. **Nobody will be forced to participate. (Participation would be on a voluntary, opt-in basis).**

2. **Any Town revenues used to initiate the network will be refunded.**

3. **The ongoing operation of the network would be self-sustaining and not dependent on any kind of subsidy from the Town.**

KEY OBJECTIVES

- **Significantly increase the speed and reliability of internet access.**

- **Lower the cost of internet access for both residents and businesses.**

- **Increase competition & choice with four to five new Internet Service Providers (ISPs).**

- **Build a state-of-the-art network that will foster economic development and the ability to work from home.**

- **Leverage the network to improve the available services, including public safety, healthcare, education, etc.**
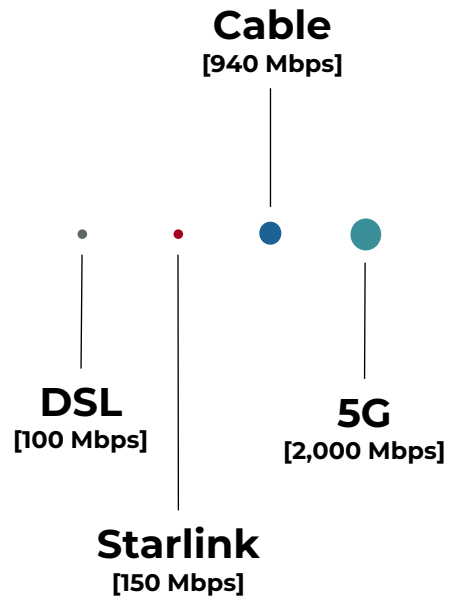
SURVEY RESULTS - 2021

Two surveys were conducted targeting Westport residents and business owners to understand opinions regarding current internet services and future needs. A total of **543 residents** and **54 businesses** completed the surveys.

The major findings from these two surveys are that **there is considerable dissatisfaction with current internet services for many reasons but primarily for unreliability, cost, and lack of provider choice**. Most respondents indicate that they depend heavily on the internet, that their dependence increased significantly during the pandemic, and many expect that trend will continue in the post-pandemic era.

The survey of business owners indicated that internet speed is very important for their business and that **80% would welcome access to a higher-speed fiber optic network**.

WHY FIBER? – COMPARISON BY MEDIUM

Current Maximum Download Speeds

Cable
[940 Mbps]

Fiber

25 Tbps

[25,000,000 Mbps]

DSL
[100 Mbps]

5G
[2,000 Mbps]

Starlink
[150 Mbps]

PROJECTED MONTHLY COST (1,000 x 1,000 Mbps)

Projected Subscription Cost (Gig Speed)

Projected Residential Services Monthly Costs	40% Take-Rate	50% Take-Rate	60% Take-Rate
Infrastructure	$49.56	$40.58	$34.61
Maintenance and Operations	$21.50	$21.50	$21.50
ISP Services (Dedicated 1 GB Symmetrical)	$9.99	$9.99	$9.99
Public Access Programs	$4.00	$4.00	$4.00
Monthly Total	**$85.05**	**$76.07**	**$70.10**

TOTAL PROJECTED CAPITAL COST

Projected Infrastructure Investment Total Costs

Financial Pro-Forma of Full Project Costs - Two Year Build - Ethernet Architecture

Network Segment	40% Take-Rate	50% Take-Rate	60% Take-Rate
Common*	$18,864,949	$18,864,949	$18,864,949
Drop*	$1,992,066	$2,490,082	$2,988,383
Total Projected Costs	**$20,857,015**	**$21,355,031**	**$21,853,332**

THE MONEY IS ALREADY HERE

ENTRY POINT NETWORKS

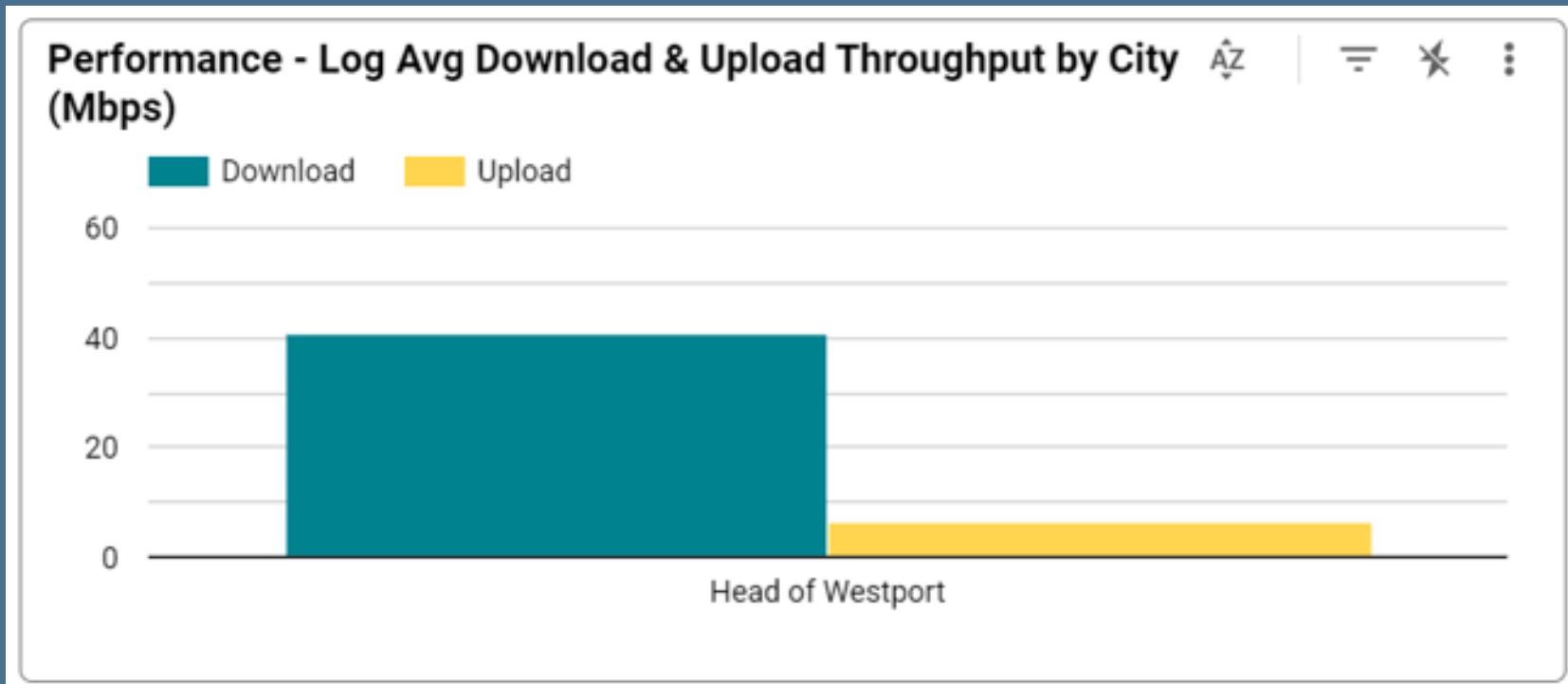|		
🏠	Number of Premises (Households / Businesses)	**6,000**
⚙️	Average Monthly Internet Costs	**$68.38**
e	Annual Internet Spend	**$4,923,360**
$	20 Year Internet Spend	**$98,467,200**

CURRENT SPEEDS (Data from mLABs)

The average speed by Spectrum in Westport is 47.58 Mbps download / 6.97 Mbps upload

Performance - Log Avg Download & Upload Throughput by City (Mbps)

Download   Upload

Head of Westport

COMPLETED WORK

1. 2021 Survey.

2. Identify sections of the Town for a phased implementation.

3. Ran fiber backbone through the center of town with enough capacity to expand into the community.

4. Identified the location of additional fiber loops off the backbone and started the work to construct two of the six using grant money.

5. In the process of connecting all the Town sites to that backbone.

6. Created a high-level engineering drawing.

NEXT STEPS

1. Identify sections of the Town for a phased implementation.

2. Determine the appropriate governance structure.

3. Decide on the project phasing for a deployment.

4. Identify middle mile options and costs.

5. Select an open access and Owners Representative partner.

6. Select a design / engineering partner.

7. Select a construction partner.

8. Refine the strategy for financing a phased townwide construction project.

9. Develop and implement a community engagement strategy for the initial phase(s).

FEDERAL & STATE GRANTS

THE FEDERAL GOVERNMENT WILL RELEASE $42 - $65 BILLION IN BROADBAND GRANTS OVER THE NEXT 3 YEARS

THE PROJECT PENCILS WITHOUT THE GRANTS

BUT WESTPORT SHOULD PURSUE ALL GRANT OPPORTUNITIES

COMMUNITY ENGAGEMENT

Robust Community Engagement is Key to Success

- Determine whether the Town will use an outside community engagement resources.

- Develop the project plan for all involved parties

- Organize additional survey work.

- Develop a web presence.

- Conduct direct signup outreach.

- Implement grassroots initiatives.

Thank You

Questions?

ENTRY
POINT
NETWORKS