The State of Internet Service for Lethbridge Businesses

Introduction & Methodology

Project Scope

The purpose of the Broadband Task Force of the Lethbridge Chamber of Commerce is to provide information and perspective to the Mayor's Intelligent Community Steering Committee on the current state of the City's digital infrastructure as well as the availability and quality of broadband internet services for the business sector.

The Task Force identified the need to characterize the digital infrastructure needs of businesses in the City of Lethbridge and the parameters of the service that they are currently receiving. A confidential preliminary survey was distributed to the Chamber's membership via the monthly "Voice of Business" newsletter and posted at various times through the Chamber's social media accounts. The results of which are presented in this report.

Survey Methodology

The survey distributed by the Lethbridge Chamber of Commerce assessed speed, cost, bandwidth consumption, and Internet service providers (ISPs) of businesses in Lethbridge. It was not intended to capture the cost of infrastructure or delve into the specifics of broadband technology. We felt that it was necessary to first establish whether a compelling business need and market existed before addressing any underlying technological or organizational constraints.

Survey participants were asked to provide information on their place of business, the activities that they regularly undertook online in a business capacity, and if they felt like their connection to the Internet was adequate for the purposes of their business. Participants were then directed to test the Internet speed at their place of business using the Fast.com Internet speed test (https://www.fast.com), and to ensure that did so using their work computer connected to their business' network. This quantity was measured in megabits per second (Mbps). Following the speed test, participants were asked to report the monthly cost of their Internet connection in dollars as well as the amount of bandwidth that their business consumed in the last month (in gigabytes).

Limitations of the Survey, Available Data, and Biases

The Lethbridge Chamber of Commerce received survey responses of 64 Lethbridge and region-based businesses. It is important to keep in mind that this is a small sample, which limits the findings of the study from being generalized to the entire business community, but at the same time we believe that the businesses surveyed represent a reasonable cross-section of the overall Lethbridge business community.

Further research is needed before a recommendation can be made as to whether a public or private-sector service would best serve to address the needs uncovered, as well as what sort of technological (wired, wireless, or hybrid) and logistical (build new infrastructure, upgrade existing network) approaches would be appropriate for this use case.

Interpretation of Results

What do businesses do online?

Businesses in Lethbridge are heavy users of cloud-based software and online banking. Nearly every respondent reported that they used the internet to access services such as Google Drive or Office 365. Furthermore, respondents indicated that they are also heavy users of video conferencing services (Skype, Zoom, GoToMeeting, etc.) which are bandwidth-intensive applications that require low latency. These customers may not be served well by wireless internet technologies but as noted previously, further research is required before a firm recommendation can be made.

How fast is the Internet service that businesses are receiving?

Most respondents indicated that their business is located on the North side of Lethbridge. This area is notable for the presence of large industrial parks, and aging digital infrastructure, both of which contribute to gulfs in Internet service. The availability and quality of service is highly variable in this area, as evidenced by the low average speed of service in comparison with other areas within the City.

Average Speed by Location
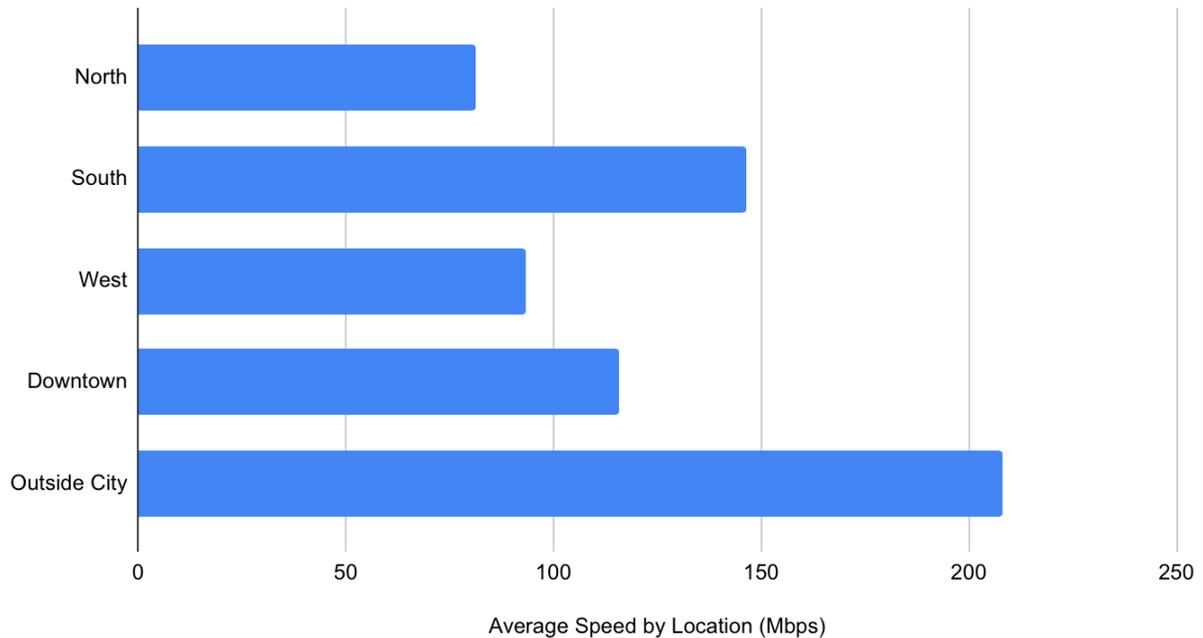
The Canadian Radio-television and Telecommunications Commission (CRTC) recommends a minimum speed of 50 Mbps downstream for internet connections[1], and we found that half of the respondents surveyed (in all areas of the city) were receiving service below the level recommended by the CTRC.

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[1] "What you should know about Internet speeds" - https://crtc.gc.ca/eng/internet/performance.htm

CRTC Minimum Service Target
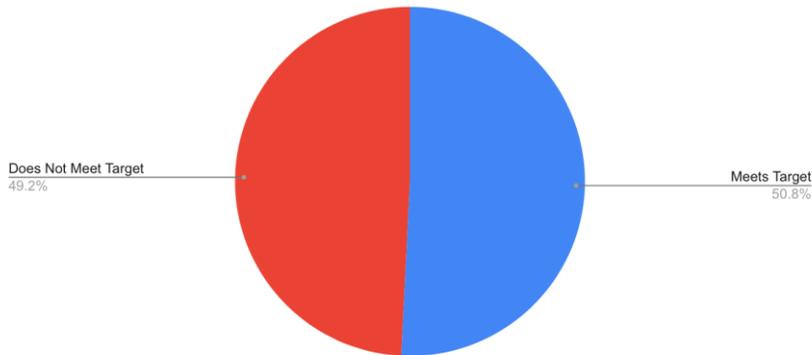
How much are businesses paying for Internet service? Are they happy?

On average, the businesses we surveyed reported that they were paying $194/month for Internet service. Although costs varied widely between individual respondents, they typically ranged between $50 and $300/month. Only 2 respondents reported paying more than $300 per month.
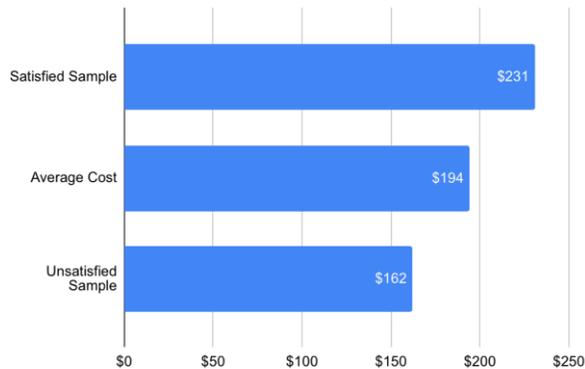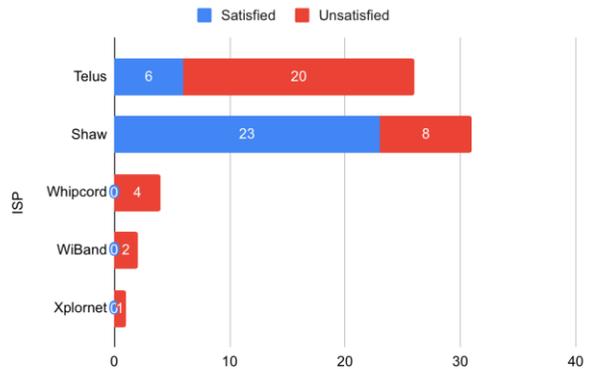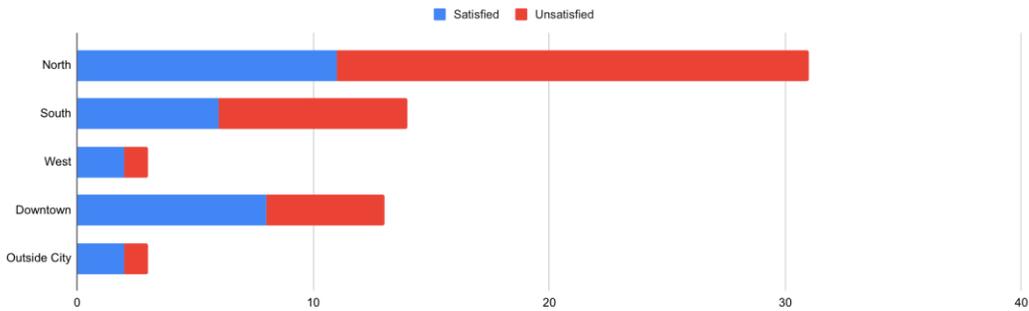

The majority respondents who indicated that their Internet provider was Telus reported that they were unsatisfied; whereas the majority of those who indicated that their provider was Shaw reported that they were satisfied with their service. Further research is required to determine whether this is based on the cost of the overall service in comparison to other providers, the speed of the connection, the infrastructure over which the service is delivered (Telus uses a combination of fibre optic and copper infrastructure for ADSL, for instance, while Shaw uses primarily coaxial cabling), or on factors that exist outside of the scope of this survey. Counter-intuitively, we found that those who were paying more per month for their Internet service tended to be those who were more satisfied with the service they received.

Which areas of the City are underserved by ISPs?

Survey participants who were dissatisfied with their Internet service were distributed throughout the city, and that the majority of those surveyed (54.7%) indicated that the Internet service they are currently receiving does not adequately serve their business' needs.

Satisfaction by Location

Satisfaction by Location

Legend: Satisfied (blue), Unsatisfied (red)

Location	
North	(Satisfied ~11, Unsatisfied to ~31)
South	(Satisfied ~6, Unsatisfied to ~14)
West	(Satisfied ~2, Unsatisfied to ~3)
Downtown	(Satisfied ~8, Unsatisfied to ~13)
Outside City	(Satisfied ~2, Unsatisfied to ~3)

Axis: 0, 10, 20, 30, 40

How much bandwidth do businesses consume?

On average, we found that businesses consumed over 500 gigabytes (GB) of Internet bandwidth per month, and that the most intensive users transferred more than 4 terabytes (TB) of information in the same time period. Notably, over 50% of survey respondents were unable to locate the amount of bandwidth that they consumed on their monthly Internet services statements. This could indicate either a lack of transparency on the part of the ISPs, or a lack of education on the part of internet consumers when it comes to judging how heavily they use their Internet service (or both).