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Highland Broadband Market Assessment Report

Executive Summary
August 17, 2018

Prepared for:

City of Highland, IL
Highland Communications Services

1. EXECUTIVE SUMMARY

Broadband is essential infrastructure. Without it, communities face population and business losses, higher costs in providing civic services, stalled business attraction, and limited economic growth. As part of a larger community vision, digital infrastructure is a platform for digital transformation that improves the quality of life for citizens and the economic prospects for businesses.

The City of Highland has the essential infrastructure for digital transformation with the Highland Communication System (HCS). The HCS network and data services provide both residents and businesses with reliability and speed rarely available in communities of similar size. HCS data service pricing is also very competetive with equivalent offerings in other markets, as evidenced in the recent Harvard Study[1] that ranked HCS in 5th in the nation for value and affordability. These qualities of the HCS services are reflected in the high satisfaction ratings by Highland residents and businesses from the recent reaserch conducted by Strategic Networks Group (SNG), demonstrating that the HCS network is a valued asset for the community.

While HCS is a vital asset for Highland in providing high-speed and robust internet access to residents and businesses, the value to users and to Highland comes from how it is used. Just like road infrastructure, benefits from digital infrastructure are realized when they are used. An unused highway has no value. However, the effective use of online applications and digital technologies requires awareness raising and technical support for the majority of households and businesses. SNG's research shows that the majority of households and businesses are underutilizing the internet connection they have.

Local businesses and households in Highland need to have the necessary digital literacy and proficiency to get the full benefits from online applications and new technologies. SNG defines this as utilization. Some Highland residents and businesses are proficient and comfortable with using technology and online applications – however many are not. It is in HCS' and Highland's interest to raise digital literacy and proficiency because they are key drivers in effective utilization. SNG's research shows that the higher the level of utilization, the greater the economic and community benefits to Highland.

1.1 Key Findings and Insights

Connectivity and HCS Data Services
- High satisfaction with current HCS data services for speed, reliability, and value by household and business subscribers.
- Half of HCS residential customers subscribe to lower speed packages (20 or 40 Mbps).
- Two-thirds of HCS business customers subscribe to lower speed packages (20 or 40 Mbps).

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[1] Community-Owned Fiber Networks: Value Leaders in America - https://cyber.harvard.edu/publications/2018/01/communityfiber

Household Utilization – Key Findings

- Despite the quality of HCS data services, residents use the internet at a similar level to less well-served areas. More than 46% of household are below average in their use of the internet.
- Digital proficiency is low for 21% of Highland households (know nothing, or just the basics). This increases to 40% for seniors. 24% of Highland residents consider themselves "expert users".
- 25% of Highland households telework, with the majority teleworking three or more days per week.
- 24% of Highland households have, or plan to have, a home-based business.
- One-third of Highland households generate additional income from using the internet.
- Half of Highland households are currently using or willing to explore telehealth services.
- More than 80% of Highland households with school age children use the internet for education.
- Fewer than half of HCS residential customers subscribe to video service packages.
- Almost three quarters of Highland households use video streaming services or cast video content.
- The majority of those not streaming would consider doing so if it is as easy to do.

Business Utilization – Key Findings

- More than half of Highland businesses are missing out on potential revenues and cost savings because of low utilization.
- Digital proficiency is an issue for Highland businesses, with 60% citing "Lack of internal expertise and knowledge" as a significant barrier to adopting new online practices.
- 20% of Highland businesses do not have an active website, and 46% do not pursue online sales. These businesses are not fully engaged in the digital economy and risk maintaining relevance and competitiveness.
- Half of Highland businesses consider the availability of quality broadband "essential" for selecting and remaining in their location, reflecting the importance of HCS for retaining and attracting businesses in Highland.

1.2   Opportunities for Highland and HCS

Highland Communications System (HCS) has opportunities to drive demand for higher value data services by:

- Personalizing the benefits of broadband and higher value data services to individual businesses and residents – "here's how broadband can help you"
- Assisting residents and businesses in digital proficiency to help them get the most from their internet connection. This is especially important for small and medium sized businesses, as well as for older demographics.
- Promoting the benefits of telework, home business, skills development, and telehealth and provide guidance on how to make that digital transformation.
- Engaging with businesses as a trusted and impartial advisor to provide guidance on adopting online applications and new technologies that help them grow by accessing new markets, offering new services, etc.

- Capitalizing on the current video trends by promoting the use of streaming video services along with practical easy-to-use solutions as an alternative to cable services. This could help HCS transition subscribers away from high-cost cable services and improve HCS profitability.

These opportunities not only help residents and businesses gain greater benefits from the internet, they also stimulate increased demand for HCS data services and build a strong partnership relationship with subscribers and the community.

The City of Highland has opportunities to benefit from:
- Promoting the City of Highland as a community of choice to live, work, and do business by virtue of having network connectivity as good, or better than many large urban centers.
- Increase retention and attraction of population through the opportunity for people to telework, operate a home business, and confidently age in place with telehealth services.
- Increase the retention and attraction of businesses by having world-class broadband and supporting businesses in digital transformation. Healthy, growing businesses create new good-paying job opportunities.

These opportunities leverage HCS as a high-value asset that strengthens Highland's quality of life, economic vitality, and opportunities for growth. This helps Highland solidify and grow its tax base.

1.3 Capitalizing on the Opportunities – The Path Forward

To realize the potential benefits listed above for HCS and the City of Highland, SNG recommends two steps be taken with local households and businesses: 1) raising awareness; and, 2) providing technical assistance.

For both households and businesses, the first step is to raise their awareness about how they individually can benefit from broadband – this involves public outreach, including public meetings, seminars, etc., to raise awareness and personalize the benefits of broadband. This is critical because SNG's research shows that most people are not aware of what they could and should be doing with online applications and new technologies.

The second step is to provide technical assistance and support where it is needed and when it aligns with HCS and City of Highland goals. When community benefits outweigh costs, there is an economic and community incentive to support local businesses and households with effective implementation. If newly implemented online applications and new technologies do not work properly, their full benefits will not be realized – and may even cause people to ask "Why did I spend my time and money on this?". This represent an opportunity cost to that business or household. It is also an opportunity cost to the City of Highland in terms of community benefits and HCS in terms of subscription revenues. Effective implementation and appropriate follow-through are quality assurance steps that are key to Digital transformation of Highland businesses and households requires a technical advisor, someone who is trusted to sit down with them at their office or their home to implement and make sure everything is working properly

Public Outreach and Raising Awareness

This is community-based marketing of the value broadband and HCS services can have for local businesses and households. Public meetings, seminars, webinars, etc., can be very effective ways to raise awareness across the Highland in a manner that is cost-effective. Topics and themes should be selected that personalize the value of online applications and new technologies to targeted groups in Highland where the community benefits outweigh the costs.

Additionally, interest in networking and peer sharing can be identified during the sessions. Organizing and supporting ongoing learning and information sharing through peer groups can be with existing organizations in Highland. The goal is to drive utilization and benefits for those teleworking, owning a home or small business, etc.

Below are some examples of sessions that could be promoted and held on a monthly basis in Highland:

Cutting the Cord – Helping Highland residents understand how they can use their HCS internet connection to use streaming and casting services that gives them access to the content they want when they want it.
HCS benefits – Moves subscribers to an 'over the top' model from the high-cost cable model for video, which helps reduce HCS's costs and improve sustainability.
Highland benefits – Lowers cost for video content for Highland residents.

Teleworking and Home Business – what are the opportunities? – SNG's research shows that over 40% of teleworkers earn more than $100,000 per year and over 80% earn more than $50,000 per year, while alos saving significant amounts of time in commuting every week. Home businesses can supplement income, or become full time income for households. What are the opportunities, how to get started, and how to make the most of these opportunities?
HCS benefits – Increases demand and subscriptions for higher value broadband packages, which increases HCS's revenues and sustainability.
Highland benefits – New and increased income opportunities for Highland residents. Contributes to attraction and retention of households in Highland.

Creating and Maintaining and Effective Online Presence for your Business – Small businesses in Highland learn the value and options of creating and maintaining an online presence - to keep existing customers, offer more to existing customers, and reaching new customers. Different sessions could focus on specific industry sectors, or online business practices. Practical information learning sessions also increase demand for local professional services to implement online applications and new technologies.
HCS benefits – Local businesses better understand the value of higher value broadband connections, which increases HCS's revenues and sustainability.
Highland benefits – Local business retention and expansion without capital investments

SNG can develop other examples of public outreach and sessions that raise awareness based on the specific needs of Highland from data collected by SNG from local households and businesses.

Technical Advisory Services

Providing guidance and technical advice to residents and businesses should be local and unbiased. The City of Highland should invest in building professional resource staff to partner with residents and businesses as trusted advisors to guide them on application, technologies, and solutions. This staff should also partner with local technical service providers who can support the needs of households or businesses when required.

The advisor role - Once local businesses and households better understand the value of online applications and new technologies, their first question typically is who can help them select and implement the right solution for them. The advisor is a staff who acts as a knowledgable, unbiased guide who can meet with residents or businesses to understand their needs, assist in identifying solutions, and assist them to properly setup and effectively implement online applications and new technologies. The advisor should be available on demand for appointments to meet with Highland residents and businesses on site when convenient for them, suchas daytime or evenings.

The advisor should not be expected to undertake technical installations as such, but rather listen to the client and provide guidance and advice, assist where possible, and make connections with other local service companies as appropriate, such as website developers, social media experts, etc. The advisor should be able to communicate effectively with those who have little technical knowledge as well as those who have more expertise.

Examples of technical advisory services that could be offered include:

- How to create and set up a website
- Setting up selling online
- Developing a plan for marketing online and social media
- Setting up online customer service
- Implementing VoIP solutions – for businesses and households
- Setting up home offices for teleworking or home business
- Site monitoring security
- Data storage and back-up planning / implementation

SNG is ready to support HCS and Highland in the development and successful implementation of a digital transformation initiative. By addressing the specific needs and unique opportunities from the Highland Broadband Market Assessment, the City of Highland can fully leverage the HCS asset and the network connectivity which is as good, or better than, many large urban centers. Taking the right steps to advance Highland's economy in a digital world will enable Highland to become a community of choice to live, work, and do business.