City of Harvey Broadband Strategic Plan

September 2021





Illinois Department of Commer & Economic Opportunity OFFICE OF BROADBAND JB Pritker, Governor





City of Harvey Broadband Strategic Plan

September 2021

A planning document for:

The City of Harvey and its partners



Authored by:

Nick Greifer, City of Harvey

Curtis Witek, Antero Group

David Clay II, City of Harvey

With support from

Illinois Department of Commerce and Economic Opportunity, Office of Broadband



Illinois Department of Commer & Economic Opportunity OFFICE OF BROADBAND JB Pritzker, Governor

Antero Group



Benton Institute for Broadband & Society



CONTENTS

A LETTER FROM THE MAYOR

ACKNOWLEDGEMENTS

DEFINITIONS

| 1 | INTRODUCTION | 7 |
|---|---------------------|----|
| 2 | EXISTING CONDITIONS | 16 |
| 3 | THE ACTION PLAN | 26 |
| 4 | MOVING FORWARD | 42 |
| | APPENDICES | |

A. Overview of the Illinois Connected Communities Program

B. Harvey WISP Project

A LETTER FROM THE MAYOR



On behalf of the City of Harvey, I am pleased to transmit the City of Harvey Broadband Strategic Plan which will guide the City as it seeks to "Build a Better Harvey" and promote conditions for equitable growth in the community.

As it has become clear in recent months, the City and certain areas within Illinois face serious gaps in internet delivery. We in Harvey face the well known challenge of a Digital Divide.

Moreover, with the advent of COVID-19, this Digital Divide is no longer a minor issue – in truth, it is major roadblock to full participation by our residents in our fast paced, increasingly online modern economy. With the terrible impact of COVID-19 being felt in the southern suburbs and especially in Harvey, it is now clear that broadband is an absolute necessity and that it has become a critical "utility" for daily living.

Accordingly, our Broadband Strategic Plan is the right plan with the right proposals at the right time. As you read through our "road map" listing various community-based strategies, please be aware this is truly a comprehensive approach factoring in all aspects including internet access, adoption and use (i.e., technology utilization in the home). The City leadership understands that broadband technology is expanding regionally and that Internet Service Providers are prospering in the greater Chicago area, but the economics of technology deployment must be made to work for the working families in Harvey. The Broadband Strategic Plan seeks to do just that.

I want to thank City staff and steering committee members as well as external stakeholders for lending their assistance on this critical project. With your support and good will, I am confident we can set the City on a path that will help close the Digital Divide.

Sincerely,

Christopher J. Clark Mayor, City of Harvey

ACKNOWLEDGMENTS

The City of Harvey developed this *Broadband Strategic Plan* to align efforts to bridge the Digital Divide. The Harvey *Broadband Strategic Plan* was written by Nick Greifer, Curtis Witek, and David Clay II, with guidance and feedback provided by the City's Steering Committee.

This strategy was made possible by the generous support of the Office of Broadband at the Illinois Department of Commerce and Economic Opportunity (DCEO), which awarded the City a 2020 *Illinois Connected Communities* grant. This grant enabled the City to convene a Steering Committee and engage other experts to aid in the development of a community-driven strategic plan that articulates Harvey's broadband vision and identifies an action plan for progress toward improved broadband access, adoption, and utilization.



The City of Harvey wishes to thank the following Steering Committee members, City staff, partners, and industry experts who provided input on the development of this strategy:

- Mayor Christopher Clark, City of Harvey
- **Timothy Williams**, City of Harvey
- Robin Streets, City of Harvey
- Joseph Whittington, City of Harvey
- Donella Bradford, Ingalls Development Foundation
- Berry Doss, District 205
- Mark Hall, Avidity Technologies
- Bary Ann Thornton, Avidity Technologies
- Daryl Crudup, Harvey Public Library

The City of Harvey also wishes to extend special thanks to **Bill Coleman** from the Benton Institute for his valuable contribution to the development of this strategy.

DEFINITIONS

Access. Broadband access refers to the availability of basic broadband service, currently defined by the Federal Communications Commission (FCC) as wireline service of at least 25 megabits per second (Mbps) download and 3 Mbps upload.

Adoption. Broadband adoption refers to consumer subscription to broadband service.

5G. 5G refers to the 5th generation mobile network. 5G wireless technology is meant to deliver higher multi-Gbps peak data speeds, ultra low latency, more reliability, massive network capacity, increased availability, and a more uniform user experience to more users.

Broadband. In the context of internet access, broadband is used to mean any high-speed internet access that is always on and faster than dial-up access.

Digital Divide. The gulf between those who have ready access to computers and the internet, and those who do not.

Digital Equity. Digital Equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy. Digital Equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services. **Fiber Optics.** Fiber optics is the technology used to transmit information as pulses of light through strands of fiber made of glass or plastic over long distances. It is this technology that provides homes and businesses with fiber-optic internet, phone and TV services.

Mobile Network Operator. A mobile network operator (MNO), also known as a wireless service provider, wireless carrier, cellular company, or mobile network carrier, is a provider of wireless communications services that owns or controls all the elements necessary to sell and deliver services to an end user, including radio spectrum allocation, wireless network infrastructure, back haul infrastructure, billing, customer care, provisioning computer systems, and marketing and repair organizations

ISP. The term Internet Service Provider (ISP) refers to a company that provides access to the internet to both personal and business customers. ISPs make it possible for their customers to surf the web, shop online, conduct business, and connect with family and friends—all for a fee.

Utilization. Broadband utilization, or use, refers to how broadband is used by individual households, businesses, or community anchor institutions – be it for improved quality of life, employment or commercial opportunities, economic development, or any number of related applications in areas such as distance learning, telehealth, and others.

1.INTRODUCTION

This chapter includes the following sections:

- The Challenge
- Project Overview
- Plan Goals
- Planning Process
- Strategic Framework
- Measures of Success



The Challenge: Bridging Harvey's Digital Divide.

Digital Divide. The gulf between those who have ready access to computers and the internet, and those who do not.



THE CHALLENGE

- **1 in 5** households do not have broadband in Cook County.
- Only **72%** of Harvey households have a broadband subscription.
- Affordability is a key factor driving low rates of internet subscriptions in Harvey and other Southland communities.
- The **Digital Divide** in Harvey makes it increasingly difficult for residents to search for resources, apply for jobs, pay bills online, purchase products, participate in educational and telehealth opportunities, and more.

Source: 2015-2019 American Community Survey 5-year estimates

Project Overview

The City of Harvey was one of twelve organizations selected to be part of the initial cohort to *Illinois Connected Communities* program, a 12-month, community-driven program (See **Appendix A**). This program provided technical assistance and served as a springboard for developing the *Harvey Broadband Strategic Plan*.

10

11

The Harvey Broadband Strategic Plan articulates the community's broadband vision and provides recommendations for improving broadband access, adoption, and utilization amongst area residents, businesses, and anchor institutions. This plan aligns with goals outlined in the statewide Connect Illinois Broadband Strategic Plan, Cook County's Digital Equity program, as well as the City's local planning and development priorities.

HARVEY'S BROADBAND VISION

The City envisions a future without a Digital Divide in which residents, the local business community, and anchor institutions have access to affordable, high-speed broadband service. Improved access, adoption, and utilization of broadband will help facilitate a mutually-reinforcing cycle of community and economic development.

Plan Goals

Moving forward, the City will work to advance innovative policies, projects, programs, and public-private partnerships to achieve the following three goals:



ACCESS. Build and optimize the infrastructure necessary to deliver affordable, high-speed broadband internet to Harvey's residents, businesses, and anchor institutions.



ADOPTION. Ensure the equitable distribution and delivery of broadband infrastructure and services.



11 11

UTILIZATION. Maximize the benefits and value created through end users' use of broadband by increasing digital literacy.

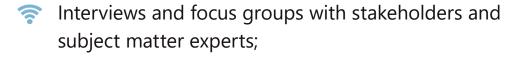
Planning Process

12

11

11 11

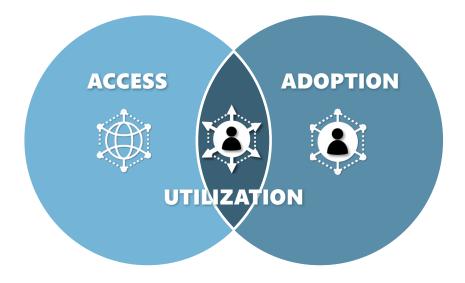
A variety of planning, research, and community engagement methods were used in the development of this plan, including:



- Review of industry best practices, case studies, emerging trends and market drivers;
- Community surveys;
- Steering Committee review; and
- 🛜 City Council input.

Strategic Framework

Harvey's *Broadband Strategic Plan* is built on three core goals, which address the community's access, adoption and utilization of broadband services. This plan is based on the premise that improved access and adoption of broadband services will drive greater utilization of broadband services and the many benefits they provide.



ACCESS. Build and optimize the infrastructure necessary to deliver affordable, high-speed broadband internet to Harvey's residents, businesses, and anchor institutions. FOCUS: Infrastructure development.

ADOPTION. Ensure the equitable distribution and delivery of broadband infrastructure and services. *FOCUS:* Improved affordability.

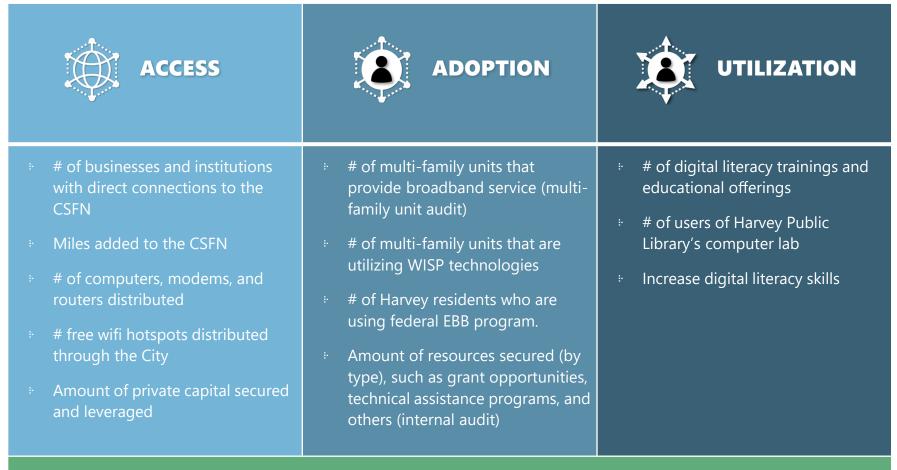
UTILIZATION. Maximize the benefits and value created through end users' use of broadband by increasing digital literacy. *FOCUS:* Training and curriculum development

Strategic Framework

Each goal has a corresponding set of objects and strategies. Altogether, this plan include nine strategies that City leaders, staff, and other partners can use to inform departmental actions, guide budget priorities and resource allocations. This plan also provides a framework for ongoing accountability.

| | Goals | Objectives | Strategies | | |
|----------|--|--|--|--|--|
| Access | Access. ¹ Build and optimize the infrastructure necessary to deliver affordable, high-speed broadband internet to Harvey's residents, businesses, and anchor institutions. | Objective 1. Expand the reach of the Chicago Southland Fiber Network (CSFN) within Harvey. | Strategy 1. Work with local and regional partners to expand the fiber optic network in Harvey and the broader Southland region. | | |
| | | | Strategy 2. Encourage and incentivize internet service providers (ISPs) and wireless carriers to provide affordable, high-speed internet to Harvey's residents, businesses, and institutions. | | |
| | | Objective 3. Establish a city-wide network of free wifi hotspots, with at least one hotspot in each of Harvey's six wards as grants are announced. | Strategy 3 . Establish an array programs, hotspots, and public computer centers (PCCs) through which residents can access Harvey's broadband network and services. | | |
| Adoption | Adoption. ² Ensure the equitable distribution and delivery of broadband infrastructure and services. | Objective 1. Decrease the Digital Divide or gap between the City and the greater Chicago region by 50% by 2026. Objective 2. Increase the percentage of households with a computer 10% by 2026. Objective 3. Increase the percentage of households with a broadband subscription 10% by 2026. | Strategy 1. Secure and leverage governmental, private, and civic sector resources to increase residents' access to discounted computers and laptops. | | |
| | | | Strategy 2. Continue to participate in regional initiatives and collaboratives that ar | | |
| | | | Strategy 3. Prioritize and advance policies, programs, projects, and public-private partnerships that support the equitable distribution of broadband infrastructure and services to end users. | | |
| Use | Use. ³ Maximize the benefits and value created through end users' use of broadband by increasing digital literacy. | Objective 1. Support the expansion of programs that provide digital literacy education and training to | Strategy 1. Support the expansion of digital literacy education and training at Thornton Township High School, the Harvey Public Library, South Suburban College, and other educational institutions. | | |
| | | d value created through d users' use of broadband tech-focused workforce development programs | Strategy 2. Ensure that Harvey's youth and residents are equipped for 21st Century economy careers through partnerships with workforce development organizations. | | |
| | | Objective 3. Establish a program that expands Harvey's youth and students access to high-tech careers. | Strategy 3. Help promote and cultivate a high-tech industry cluster in Harvey through the City's economic development efforts and infrastructure investments. | | |
| | Execution | ✓ Clear accountability and leadership ✓ Robust, multi-source funding | Multi-stakeholder engagement and partnerships Clear objectives and metrics | | |

Measures of Success



Data Collection Methods: community survey, development audits, internal audits, activity tracking, self-reporting, review of regional time-series datasets; census data.

2.EXISTING CONDITIONS

This chapter includes the following sections:

- Harvey's Digital Divide
- What we heard
- Community Survey Results
- Community Assets
- The Chicago Southland Fiber Network

own & Country Park

Phoenix

6

Harvey

2

5

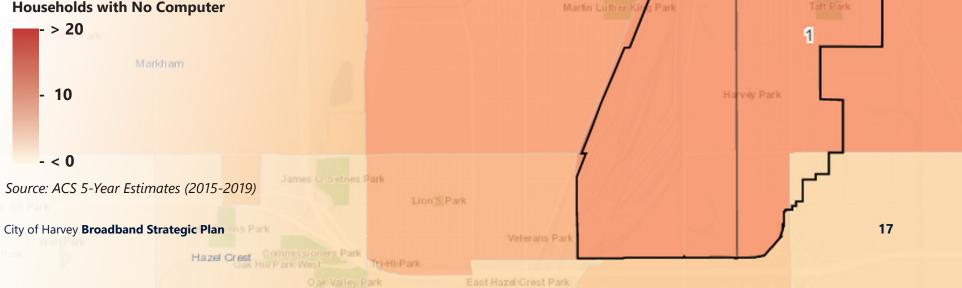
liwanis Park

Park

Harvey's Digital Divide

- 17% of Harvey households do not have access to a computer
- 16% of Harvey households use a smartphone as their only computing device.
- 25% of households in Harvey have no internet access
- In Ward 3, over 20% of the population between 18-64 live in households with no computer access.

Percent of Population 18 to 64 Years in Households with No Computer



3

in coln Park

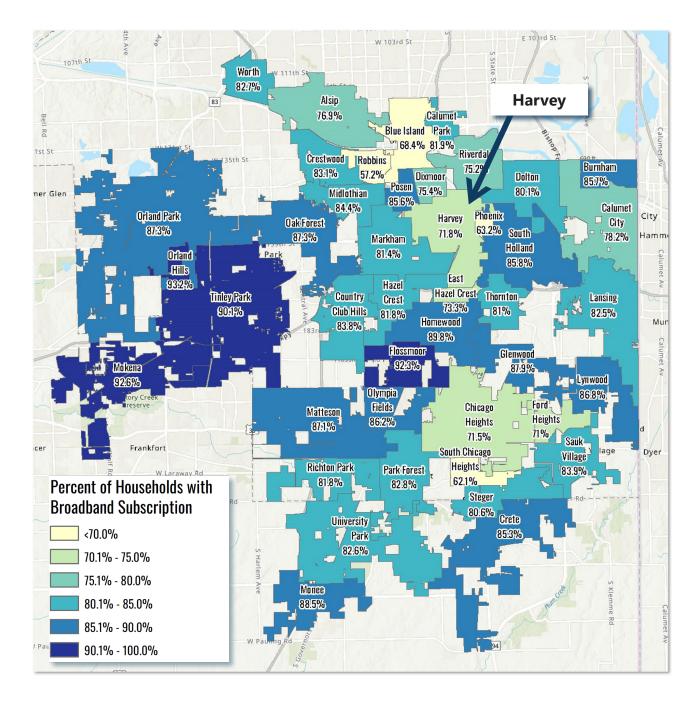
Harvey's Digital Divide in Context

- Only 72% of Harvey households have a broadband subscription.
 For comparison, 81% of Cook County households have a broadband subscription.
- Over 90% of households in Flossmoor, Tinley Park, and Mokena have a broadband subscription.
- The Digital Divide is most severe in Harvey, Robbins, Ford Heights, Chicago Heights, and Blue Island.

| | Harvey | | Cook County | | CMAP Region | |
|-------------------------------|--------|---------|-------------|---------|-------------|---------|
| | Count | Percent | Count | Percent | Count | Percent |
| One or More Computing Devices | 6,830 | 82.6 | 1,761,565 | 89.3 | 2,844,477 | 91.1 |
| Smartphone(s) Only | 1,334 | 16.1 | 138,414 | 7.0 | 189,503 | 6.1 |
| No Computing Devices | 1,441 | 17.4 | 210,543 | 10.7 | 278,853 | 8.9 |
| Internet Access | 6,219 | 75.2 | 1,683,254 | 85.4 | 2,741,960 | 87.8 |
| Broadband Subscription | 5,938 | 71.8 | 1,605,588 | 81.4 | 2,640,864 | 84.6 |
| No Internet Access | 2,052 | 24.8 | 288,854 | 14.6 | 381,370 | 12.2 |

Source: ACS 5-Year Estimates (2015-2019); CMAP Community Data Snapshots

Household Internet Access by Broadband Subscription



What we heard

Factors contributing to low rates of broadband subscription adoption include:

- Harvey has a median household income of \$30,306, which is less that half the median household income of Cook County overall. Broadband subscription services are simply unaffordable to many Harvey residents.
- Many households lack the hardware and devices necessary to connect to the internet (e.g., computer, smart phone, router, modem).
- Many residents rely on their phone as their only means of internet access, which is not cost effective in relation to data used (e.g., very high \$ per Megabit per second).

Lack of digital literacy and computer skills.

11

20

Harvey's Broadband Steering Committee provided several key insights, including:

- Affordability and household income are the key factors driving the rate of broadband service subscriptions.
- Industry "duopoly" and limited competition impacts affordability. Comcast & AT&T dominate the market.
- There is a need for increased competition in the broadband marketplace.
- The low broadband penetration rate makes the City's residents less competitive in the job market, less able to utilize emerging services (e.g., telemedicine) and impacts the City's economic competitiveness.

What we heard

The structure of the broadband industry is still evolving.

- "Incumbent" broadband service providers with the largest market share are Comcast/Xfinity and AT&T.
- Newer entrants, however, are emerging and are using a different set of technologies to deliver broadband internet to customers.
- WISPs (Wireless Internet Service Providers) provide clients and customers with a hybrid mix of solutions ranging from wireless Wi-Fi transmission, to fiber optic, wireless distribution.

The Broadband Committee provided the following insights about WISP services:

- WISPs present an attractive option for middle- mile and last-mile broadband infrastructure and networking services.
- Businesses such as SilverIP, Everywhere Wireless, and the Chicago Area Broadband Initiative (CABI) consortium offer options, choices and promotional deals for residents and developers.
- Some WISP state that they focus on community-centered solutions to digital inequities
- This may complement City and County efforts to foster a digitally literate and involved workforce to uphold citywide broadband services.
- Such businesses doubly act as regional and local competition to incumbent ISPs.
- Competition has the potential to result in promotions benefiting City residents and to lower subscription costs.

Community Survey Results

Survey Methodology:

- The City conducted an online survey on internet broadband.
- * The goal of the survey was to get direct City resident input.
- Caveat: The survey was a non-random sample of Harvey residents via City's and school districts' websites.
- 40 households participated in the survey.

🛜 Key findings:

- 85% have internet service at home.
- Cost is the key factor driving low rates of broadband adoption.
- 18% of households with internet access have slow internet connectivity (i.e., <25 mb/ps).



Assets to Leverage

- Employers. Leverage and support the ongoing revival of the industrial sector in southern Cook County (e.g., large e-commerce employers demand modern broadband infrastructure).
- Public spaces. Free wifi could be provided at the City's existing (and future) parks and public spaces.
- Regional partners. The City could partner with institutions, such as South Suburban College, Ingalls Memorial Hospital, South Suburban Mayors and Managers Association, Chicago Southland Fiber Network, and more...

City of Harvey Broadband Strategic Plan

Assets to Leverage

24

11

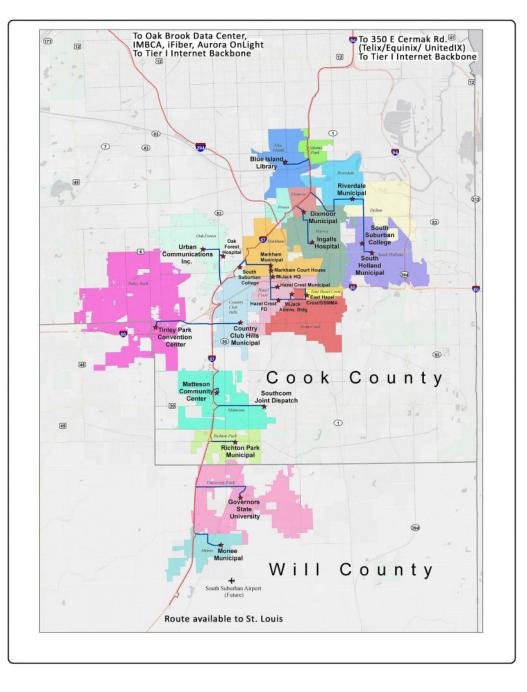
- Federal assets. The City could utilize the Federal Emergency Broadband Benefit (EBB) program and other federal programs (e.g., grants, subsidies, technical assistance programs) to advance the strategies included in Harvey's *Broadband Strategic Plan*.
- Industry assets. Interface with incumbents like Comcast and AT&T to amplify the availability and simplify the subscription process for the Comcast Digital Essentials Program. Engage with AT&T to utilize their \$2 billion, 3-year commitment to help bridge the Digital Divide through their participation in the EBB.
- Regional assets. As an inner-ring suburban with significant density, the City already enjoys significant existing fiber optic infrastructure assets. The City also benefits from previous and forthcoming investments made by private carriers and the CSFN (see below).

The Chicago Southland Fiber Network

The Chicago Southland Fiber Network (CSFN) is a multi-jurisdictional consortium with the capacity to bolster the region's broadband network.

The CSFN currently services 19 south suburban municipalities, including:

| ÷ | Blue Island | ÷ | Matteson |
|---|--------------------|---|-----------------|
| ÷ | Calumet Park | ÷ | Monee |
| ÷ | Country Club Hills | ÷ | Oak Fores |
| ÷ | Dixmoor | ÷ | Posen |
| ÷ | Dolton | ÷ | Richton Park |
| ÷ | East Hazel Crest | ÷ | Riverdale |
| ÷ | Harvey | ÷ | South Holland |
| ÷ | Hazel Crest | ÷ | Tinley Park |
| ÷ | Homewood | ŀ | University Park |
| ÷ | Markham | | |



3.THE ACTION PLAN

This chapter includes the following sections:

- Strategies for Improving Broadband Access
- Strategies for Improving Broadband Adoption
- Strategies for Improving Broadband Utilization

The Strategy









GOAL

Build and optimize the infrastructure necessary to deliver affordable, high-speed broadband internet to Harvey's residents, businesses, and anchor institutions.

OBJECTIVES

- 1. Expand the reach of the Chicago Southland Fiber Network within Harvey.
- 2. Ensure that all of Harvey's residential areas have the option to access broadband services by 2026.
- **3**. Establish a city-wide network of free wifi hotspots, with at least one hotspot in each of Harvey's six wards as grants and funding permits.

STRATEGIES

- **1.** Work with local and regional partners to expand the Chicago Southland Fiber Network (CSFN) in Harvey and the broader Southland region.
- **2.** Encourage and incentivize Internet Service Providers (ISPs) to provide affordable, high-speed internet to residents, businesses, and institutions.
- **3**. Establish an array of programs, hotspots, and public computer centers (PCCs) through which residents can access Harvey's broadband network and services.



STRATEGY 1

Work with local and regional partners to expand the fiber optic network in Harvey and the broader Southland region.

DESCRIPTION & CONTEXT

The fiber optic network is the superhighway that enables highspeed broadband internet access. Chicago's south suburbs are served by the Chicago Southland Fiber Network (CSFN) and other carriers, which provides a high-speed gigabit fiber optic network. The CSFN's 400 gigabit backbone is built to provide high speed and redundant capacity, connecting governmental buildings, colleges, hospitals, libraries, schools and commercial enterprise customers. The City could work with local and regional partners to expand the fiber optic network in Harvey.

CHALLENGES

Potential roadblocks to implementing this strategy include:

- Finding funding sources that can be used to plan, design, and construct fiber conduit.
- Physical and site-specific constraints, such as utility conflicts.
- ⁺ Right-of-way and jurisdictional issues.
- Developing effective partnerships with the SSMMA, CSFN, Cook County, and other regional entities involved with the design, construction, and management of fiber networks

RECOMMENDATIONS

The City should consider the following strategic actions:

- Adopt a "dig once" policy. Dig once policies provide ready-made, buried conduits, enabling future providers to more easily and cheaply install fiber by threading it through existing conduits. Installing empty conduit supports future expansion efforts by substantially lowering the expense of digging for providers.
- Incorporate fiber network expansion into forthcoming roadway improvement projects. The installation of fiber conduit should be included in the scope of work for any forthcoming major roadway improvement projects..
- Use TIF funds or public-private partnerships to expand the fiber network. The City should explore the feasibility of using TIF funds or forming public-private partnerships (P3s) with developers, civic organizations, and end users to expand the fiber network. Such creative funding and financing strategies could be used to extend the fiber network to the Southland Logistics Center (SLC).



STRATEGY 2

Encourage and incentivize internet service providers and wireless carriers to provide affordable, high-speed internet to Harvey's residents, businesses, and institutions.

DESCRIPTION & CONTEXT

Only 72% of Harvey residents have access to high-speed broadband internet. Our survey results suggest that cost is the primary contributor to Harvey's relatively low rate of broadband access and utilization. Fortunately, the City has a variety of tools that can be utilized to encourage and incentivize wireless service providers and wireless carriers to provide affordable, high-speed internet to Harvey's residents, businesses, and anchor institutions.

CHALLENGES

÷

Potential roadblocks to implementing this strategy include:

- Generating investment by multi-family developers in the City remains an ongoing issue. Underinvestment limits the City's ability to implement broadband and connect large numbers of residents.
- Existing multi-family owners may be reluctant to implement broadband infrastructure improvements. This is due to a perceived increase in the cost of maintenance, and conflict with third-party ISPs providing service on an individual basis to inhabitants, and/or pre-arranged deals between multi-

family unit owners and ISPs.

- Detroit's Director of Digital Inclusion cautions against government entities advertising private ISPs as it can be misinterpreted as an endorsement. An open RFP process could be used to select a Wireless Internet Service Provider (WISP) provider.
- Trust between municipal governments and residents is a challenge in the current political climate. Digital outreach efforts may address this issue, as well as concerns relating to data and information privacy of residents.

RECOMMENDATIONS

The City should consider the following strategic actions: the following strategic actions:

 Multi-family programs. The City should utilize legal tools including redevelopment agreements to incentivize multifamily unit developers to integrate broadband infrastructure and technologies into their buildings through construction (for new buildings) or renovation process (for rehab projects). This would entail redevelopment agreement provisions to build out certain assets in the building and/or ensuring cost and quality guarantees for residents in exchange for City

assistance. The City has already executed an agreement for a building at 15720 Park that will ensure affordable and highquality internet for its residents. The forthcoming "Harvey Lofts" development at 154th and Broadway will provide the next opportunity.

- Implement programs and partnerships focused on expanding broadband access to single-family homes.
 The City of Harvey should encourage regional ISPs to service single-family residential zones. This would increase the number of broadband options from which homeowners and residents may choose. This may require a mix of technologies includes mobile hot spots, WISP, and other solutions.
- Encourage the establishment of a Fixed Wireless Internet Service Provider (WISP) Network. Fixed Wireless Internet Service Providers (WISPs) deliver reliable, affordable broadband to customers in fixed locations such as residences, businesses, and schools. Fixed wireless is the fastest-growing sector of the broadband industry, characterized by cost-effective deployment, rapid technology innovation, and many credible new entrants. Additional details on this recommendation can be found in Appendix B.





STRATEGY 3

Establish an array programs, hotspots, and public computer centers (PCCs) through which residents can access Harvey's broadband network and services.

DESCRIPTION & CONTEXT

Libraries have long played a key role in expanding the public's access to computers and the internet and they will continue to do so. Other public spaces, however, such as schools, parks, transit stations, and even the City's infrastructure systems (e.g., streetlights) can also serve as (or support) expanded access to broadband. For example, free wifi hotspots can be established at Harvey's parks, the forthcoming Harvey Transportation Center (HTC), and other public locations.

CHALLENGES

Potential roadblocks to implementing this strategy include:

- The City and its partners would need to identify funding for installation, ongoing service, and maintenance.
- Coordination with Harvey Park District, Pace, Metra, and other property and landowners.
- "Smart cities" infrastructure systems like smart streetlights are still in the proof-of-concept phase. Smart streetlights can cost as much as \$60,000 for a single installation (i.e., light pole, fixture, connected technologies).

RECOMMENDATIONS

The City should consider the following strategic actions: the following strategic actions:

- Enable free wifi access at Harvey's parks. The City should work with the Harvey Park District, Pace, Metra, and other partners to establish wifi hotspots at certain parks and public spaces.
- Explore the feasibility of integrating "smart cities" infrastructure into forthcoming capital improvements. The City's current and forthcoming streetlight improvement efforts present an opportunity to establish a connected network of smart streetlights. In addition to supporting dynamic messaging, area monitoring (e.g., air quality, gun shots, traffic counts, etc.), smart streetlights can also serve as wifi hotspots.
- Provide free public wifi at the Harvey Transportation Center. The City should work with Metra and Pace to ensure that the forthcoming HTC is designed to support free public wifi access. The station could include a retail or café space where commuters could purchase access the internet before they board their bus, train, or jump on a shared ride.



GOAL

Ensure the equitable distribution and delivery of broadband infrastructure and services.

OBJECTIVES

- **1.** Decrease the Digital Divide or gap between the City and the greater Chicago region by 50% by 2026.
- 2. Increase the percentage of households with a computer by 10% by 2026.
- 3. Increase the percentage of households with a broadband subscription by 10% by 2026.

STRATEGIES

- **1.** Secure and leverage governmental, private, and civic sector resources to increase residents' access to discounted computers and laptops.
- **2**. Continue to participate in regional initiatives and collaboratives that focus on improving digital literacy, expanding broadband access, and addressing the Digital Divide.
- **3.** Implement policies, programs, and public-private partnerships that support the equitable distribution of broadband infrastructure and services to high-need residents.



DESCRIPTION & CONTEXT

Universal broadband infrastructure is a key element of President Biden's *Build Back Better* vision. The recently passed \$60 billion Bipartisan Infrastructure Framework includes funding for projects and programs that connect people to reliable high-speed internet, "just as the federal government made a historic effort to provide electricity to every American nearly one hundred years ago." The Framework will likely trigger broadband-focused funding opportunities at all levels of government, drive down prices for internet service, and help close the Digital Divide. The City should prepare for a major wave of forthcoming infrastructure investments by creating the capacity to secure and administer grants, developing a pipeline of "shovel-ready" projects, and aligning the partners who will be involved with the implementation of broadband projects and programs.

CHALLENGES

Potential roadblocks to implementing this strategy include:

 Capacity constraints, including time, financial resources, and lack of in-house expertise on highly specialized and technical matters.

STRATEGY 1

Secure and leverage governmental, private, and civic sector resources to increase residents' access to discounted computers and laptops.

RECOMMENDATIONS

The City should consider the following strategic actions: the following strategic actions:

- Promote and distribute Broadband resources. In May 2021, the FCC released the Emergency Broadband Benefit (EBB) Program. EBB provides eligible, low-income households with a discount of up to \$50 a month for broadband service. The program also provides a one-time discount of up to \$100 on a computer or tablet for eligible households. The City should promote EBB and other related programs, before federal funding runs out.
- Develop the capacity to secure and administer grant programs. The City recently received technical assistance through the Chicago Metropolitan Agency for Planning's (CMAP) Resource, Opportunity, and Investment (ROI) program to develop the Harvey Grant Lifecycle Toolkit. City leaders should institutionalize and operationalize this toolkit and use it to guide the City's pre-award, grant program management, and post-award efforts.
- Apply for broadband-related grants and funding opportunities. Governor Pritzker's Office of Broadband has recently announced several broadband funding and technical assistance opportunities and more initiatives are expected

to be announced soon. Cook County is pursuing a \$4 million project, funded by State grants in combination with County resources. The City should monitor announcements from the Governor's Office, DCEO, Cook County, and other agencies.

 Partner with companies and organizations that can deliver near-term projects and programs. In 2021, the City partnered with PCs for People to giveaway hundreds of computers to residents in need. The City should continue to partner with businesses and non-profit organizations that have the resources and capacity to rapidly develop and deliver broadband projects and programs, such as technology giveaways (e.g., laptops, routers, modems), digital literacy training, and others.



Source: Antero Group



DESCRIPTION & CONTEXT

There are several broadband initiatives and collaboratives at the state, county, and local levels that are focused on improving digital literacy, expanding broadband access, and addressing the Digital Divide. The City should continue to participate in and monitor the progress of initiatives like Connect Illinois, the Chicago Area Broadband Initiative, and others.

CHALLENGES

Potential roadblocks to implementing this strategy include:

 Capacity constraints, including time, financial resources, and lack of in-house expertise on highly specialized and technical matters.

RECOMMENDATIONS

The City should consider the following strategic actions: the following strategic actions:

 Convene or participate in a final grant close-out meeting. The City should hold a final project close-out meeting with the Harvey Broadband Steering Committee. The agenda should include a review of the final Broadband Strategy

STRATEGY 2

Continue to participate in regional initiatives and collaboratives that are focused on improving digital literacy, expanding broadband access, and addressing the Digital Divide.

as well as discussion of next steps for prioritizing and implementing the various strategies.

- Distribute the strategy to partners. The City should distribute this strategy document to internal and external partners, including, but not limited to: Cook County, the Office of Broadband at the DCEO, South Suburban Mayors and Managers Association, the Chicago Southland Economic Development Corporation (CSEDC), and the Southland Development Authority (SDA).
- Ensure that Harvey has a seat at the table. Broadband and related infrastructure topics are becoming increasingly important at federal, state, regional, and local policy levels. Harvey could be a leader in leveraging broadband infrastructure improvements in a way that supports broader community and economic development goals. City leaders should therefore ensure that the City is represented at any forthcoming broadband collaboratives, and implementation initiatives.



DESCRIPTION & CONTEXT

This strategy outlines a variety of proposed policies, programs, and partnerships through which the City and its partners can support the equitable distribution of broadband infrastructure and services to users, especially low incomes residents with financial barriers to accessing broadband services.

CHALLENGES

Potential roadblocks to implementing this strategy include:

• Political will to advance certain priorities.

RECOMMENDATIONS

The City should consider the following strategic actions: the following strategic actions:

Consider adopting this strategy document as a guiding document. The City has developed an array of planning and strategy documents through the Building a Better Harvey initiative. These include, the Harvey Complete Streets Strategy (2021), Harvey Parks Development Strategy (2021), Harvey Capital Improvement Plan (2021, forthcoming), and the Harvey TOD Plan Update (2021, forthcoming). Harvey's

STRATEGY 3

Prioritize and advance policies, programs, projects, and public- private partnerships that support the equitable distribution of broadband infrastructure and services to end users.

City Council should formally adopt this strategy as a guiding document and use it to guide forthcoming policy and planning decisions.

Advance high priority recommendations that support the City's goals. The City should review all the strategies and recommendations in this plan and prioritize those that best align with the City's goals and current initiatives. For example, the City could prioritize projects that expand broadband access through new multi-family unit development of development in the Downtown/TOD area, or through forthcoming park improvements.



GOAL

Maximize the benefits and value created through end users' use of broadband by increasing digital literacy.

OBJECTIVES

- 1. Support the expansion of programs that provide digital literacy education and training to Harvey residents.
- 2. Increase Harvey residents' participation in tech-focused workforce development programs.
- 3. Establish a program that expands Harvey's youth and students' access to high-tech careers.

STRATEGIES

- **1.** Support the expansion of digital literacy education and training at Thornton Township High School, the Harvey Public Library, South Suburban College, and other educational institutions.
- **2**. Ensure that Harvey's youth and residents are equipped for 21st economy careers through partnerships with workforce development organizations.
- **3**. Help promote and cultivate a high-tech industry cluster in Harvey through the City's economic development efforts and infrastructure investments.



DESCRIPTION & CONTEXT

Broadband access is meaningless unless users have basic digital literacy skills. Low rates of digital literacy and skills— such as those needed to use a computer and navigate the internet is a factor limiting Harvey residents' utilization of broadband services. Without basic digital literacy, residents will find it increasingly difficult to search for resources, pay bills online, purchase products, and participate in educational opportunities. Digital literacy skills are also necessary for Harvey's workforce to participate in the 21st century economy. Partnerships with Thornton Township High School (TTHS), Harvey Public Library (HPL), and the SSMMA will be critical for expanding digital literacy in Harvey.

CHALLENGES

Potential roadblocks to implementing this strategy include:

- Limited funding and other resources necessary to develop and distribute digital literacy curriculum.
- The HPL may face logistical issues of space, manpower and/ or administration of digital literacy and/or training programs. The HPL is often understaffed, thus administering new programs may put a strain on the HPL's full participation within many aspects of Harvey's Broadband strategy.

STRATEGY 1

Promote digital literacy education and training at Thornton Township High School, the Harvey Public Library, South Suburban College, and other educational institutions.

RECOMMENDATIONS

The City should consider the following strategic actions: the following strategic actions:

- Promote the expansion and improvement of digital literacy at Thorntown Township High School. The City should cultivate relationships and partnerships with faculty and administrators at Thornton Township High School (TTHS) who are focused on digital literacy. The City should apply for funding and technical assistance through programs like Illinois' Illinois Broadband Grant Program, K-12 Broadband Network, and others. The City should support TTHS's efforts to secure federal, state, and local grants to expand on-site facilities and curriculum development.
- Promote utilization of federal programs like "E-Rate". Anchor institutions within Harvey, such as TTHS and HPL, can utilize federal programs, like E-Rate funding, to build out broadband infrastructure and develop programs to connect to fiber optic services as well as families with students in the immediate vicinity.
- Leverage internal and external resources. Leverage internal and external resources to fund digital literacy initiatives, including the allocation of future local foundation grant funds.



STRATEGY 2 Ensure that Harvey's workforce is equipped for the 21st Century economy.

DESCRIPTION & CONTEXT

Digital skills are not only required for high-tech careers but are increasingly important for attaining and keeping blue collar jobs too. Whether someone aims to work for a technology company or secure a job in one of the Southland's many manufacturing or logistics companies, digital literacy will be critical. The City should therefore support projects and programs and pursue strategic partners that promote digital literacy and skills. Doing so will help ensure that Harvey's workforce—especially the community's youth—is equipped for the 21st Century economy.

CHALLENGES

Potential roadblocks to implementing this strategy include:

- Many residents lack internet access. Any educational and training programs, must therefore be promoted through a variety of online and offline channels.
- Student engagement in extracurricular activities has been exceptionally low with the COVID-19 pandemic taking place. Thus, filling the program or club with enough students may prove challenging.
- Program logistics (e.g., issues of payment, volunteering safety, space, equipment, community outreach and general efficacy) must be addressed.

RECOMMENDATIONS

The City should consider the following strategic actions:

- Inventory and promote available digital literacy and workforce development programs. The City should develop a list of educational and workforce development programs for Harvey residents. This resource should be made available on the City's new website as well as in physical locations like City hall, churches, schools, and others.
- Promote digital literacy and educational resources through a Welcome Packet. The City should provide a "Welcome Packet" to new homeowners and renters that includes information about digital literacy, education, and job training opportunities among other resources.
- Encourage and incentivize residents to participate in educational workforce development programs. Harvey residents can participate in a variety of programs, such as the Chicago Cook Workforce Partnership Program, Opportunity Works, Chicago Southland Tech Incubator, Southworks Engineering and Robotics Olympics, and others. The City should encourage and incentivize participation in these programs through scholarships, internship opportunities, and by incentivizing area employers to recruit local talent and alumni of these programs.



STRATEGY 3

Find creative ways to unlock the full potential and value created by improving end users' access and adoption of broadband services.

DESCRIPTION & CONTEXT

When it comes to infrastructure, a core function of the City is to support the underlying infrastructure that enables individuals, businesses, and organizations to thrive. The same can be said of broadband. While the City is not in the business delivering broadband infrastructure and services, the City can and should have a role in designing, deploying, and governing broadband services. The City should govern existing and new broadband services in ways that unlock the full potential and value created by improving end users' access and adoption of these services.

CHALLENGES

Potential roadblocks to implementing this strategy include:

- Limited capacity to engage and develop partnerships with public and private entities.
- Limited time to devote to non-mission-critical municipal operations and tasks.
- Currently, there is no designated City staff who "owns" and is accountable for the delivery of this strategy.
- Challenges associated with implementing technology solutions and change management initiatives within local governments.

RECOMMENDATIONS

The City should consider the following strategic actions:

- Create neighborhood hubs that provide free wifi access. The City plans to create a new neighborhood hub in each of the City's six wards. In addition to providing residents a safe space to gather, create, study, and grow, these neighborhood hubs should also serve as free wifi hotspots and public computer centers.
- Support the development of a technology incubator(s) within the City.
- Host and promote public events, such as civic hackathons, technology-related meetups, and others, that promote the use of technology to support civic engagement.
- Adopt Government 2.0 and Open Government policies and approaches.
- Leverage internal and external resources to create a fund to support digital literacy, innovation, and inclusion.

4. MOVING FORWARD

This chapter includes the following sections:

- Immediate Next Steps
- Implementing the Plan
- Conclusion



Next Steps

Implementing this plan will require a concerted effort amongst City, County, regional and Statewide stakeholders. It will also require governmental, private sector and civic sector actors to take action within their respective spheres of influence. In the near-term, the City of Harvey should work with its partners to advance the following next steps:

🛜 Identify the City's high-priority projects and programs.

- Apply for additional funding through the Connect Illinois program to implement high-priority projects or programs.
- Continue to convene the Harvey Broadband Steering Committee and task the committee with overseeing the implementation of this plan.

City of Harvey Broadband Strategic Plan

Implementing this plan

11

The process of prioritizing and implementing the recommendations outlined in this plan will be dynamic and must be responsive to funding and financing opportunities. This plan should therefore be viewed as a 'living document' that is subject to change as the community's priorities are defined and as resources become available.

With that being said, the City should work to cultivate the following local conditions and governance structures, which will facilitate the efficient, effective and equitable implementation of plan recommendations:

- Strategic alignment at all levels of government;
- 🛜 Clear accountability, leadership and roles;
- Clear objectives and measures of success;
- 🛜 Robust, multi-source funding;
 - Multi-stakeholder engagement and partnerships; and
 - Community-driven planning and project implementation efforts.

City of Harvey Broadband Strategic Plan

Implementing this plan

Cross-Cutting Implementation Strategies

- Continue to leverage Illinois Office of Broadband Resources.
- Integrate the recommendations put forth in this plan with the City's Parks Development Strategy, Capital Improvement Program (CIP), Complete Streets Strategy, TOD Plan Update, and other citywide initiatives.
- Continue to cultivate and expand partners with allied government agencies (e.g., CMAP, SSMMA, DCEO), civic organizations (e.g., PCs for People, Chicago Area Broadband Initiative, CSEDC), and the national and local business community.

City of Harvey Broadband Strategic Plan

CONCLUSION

11

Like road networks, energy grids, and water and sewer systems, broadband is a critical infrastructure system. Addressing Harvey's Digital Divide will enable residents to fully benefit from the use of internet.

From education and telehealth, to applying for jobs, purchasing goods and services, and buying a house, the internet—and the broadband services necessary to access the internet—provide an immense array of social and economic benefits. Implementation of this plan will not only improve the quality of life for Harvey's residents, but also support the City's broader community and economic development goals.

City of Harvey Broadband Strategic Plan

APPENDICES



Appendix A

Overview of the Illinois Connected Communities Program

Illinois Connected Communities is a partnership among the Illinois Office of Broadband, the Evanston-based Benton Institute for Broadband & Society, and local philanthropy. The program is designed to engage a first-year cohort of communities through best practice curriculum, expert consultation, and a state grant of up to \$15,000.

The initial Illinois Connected Communities program cohort includes four school districts, two community-based organizations, two local governments, two county- level organizations, and two economic development groups:

- Brown County School District 1
- City of Harvey
- + Housing Authority of Champaign County
- Leadership Council Southwestern Illinois
- Mattoon School District 2
- McKinley Park Development Council
- Mercer County Better Together
- Neighborhood Network Alliance
- Palatine School District 15
- Park Forest-Chicago Heights School District 163
- Region 1 Planning Council (Winnebago County and City of Rockford)
- Village of Flanagan

Local philanthropic contributions raised to date will support more than 50 hours of free expert consultation and bestpractice curriculum for each of the twelve Illinois Connected Communities. Guidance will include assisting communities to define their technology goals; measuring current levels of broadband access, adoption, and use; and seeking technical assistance and other funds to meet community needs.

By the end of the 12-month program, each Illinois Connected Community will have completed a community-driven, broadband strategic plan that articulates the community's broadband vision and identifies an action plan for progress toward improved broadband access in the areas of community and economic development, education, civic engagement, healthcare, agriculture, and more.

The implementation of broadband strategic plans builds on concerted efforts by the Pritzker administration to increase broadband capacity and is critical for the economic growth of Illinois communities in the wake of the COVID-19 pandemic. Just last month, Governor Pritzker launched an historic \$50 million investment in broadband infrastructure, which pairs \$65 million in nonstate matching to deliver high-speed reliable access to more than 26,000 homes, farms and businesses. This initial investment is part of the Governor's 4-year plan, Connect Illinois, to bring universal access to communities across Illinois. Connect Illinois contemplates a second round of grants later this year.

Source: https://www2.illinois.gov/dceo/ConnectIllinois/Pages/ConnectedCommunities.aspx

Appendix B

Harvey WISP Project

ACTION PLAN.

11

-

 Π

Encourage the establishment of a Fixed Wireless Internet Service Provider (WISP) Network.

The Challenge



THE CHALLENGE

- 1 in 5 households do not have broadband in Cook County.
- Only **72%** of Harvey households have a broadband subscription.
- **Affordability** is a key factor driving low rates of internet subscriptions in Harvey and other Southland communities.
- The **Digital Divide** in Harvey makes it increasingly difficult for residents to search for resources, apply for jobs, pay bills online, purchase products, participate in educational and telehealth opportunities, and more.



The Strategy

Vision & Goals

11 11

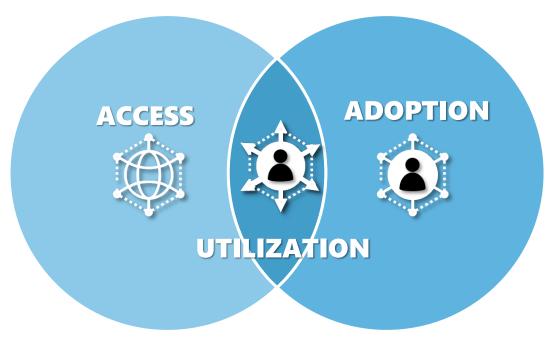
Harvey's Broadband Vision

The City envisions a future without a "digital divide" in which residents, the local business community, and anchor institutions have access to affordable, highspeed broadband service. Improved access, adoption, and utilization of broadband will help facilitate a mutually reinforcing cycle of community and economic development.



Vision & Goals

Harvey's *Broadband Strategic Plan* is built on three core goals, which address the community's access, adoption and utilization of broadband services. This plan is built on the premise that improved access and adoption of broadband services will drive greater utilization of broadband and the many benefits it provides.



ACCESS. Build and optimize the infrastructure necessary to deliver affordable, high-speed broadband internet to Harvey's residents, businesses, and anchor institutions. FOCUS: Infrastructure development.

+

ADOPTION. Ensure the equitable distribution and delivery of broadband infrastructure and services. FOCUS: Improved affordability.

UTILIZATION. Maximize the benefits and value created through end users' use of broadband by increasing digital literacy. FOCUS: Training and curriculum development



Strategic Framework

Each goal has a corresponding set of objects and strategies. Altogether, this plan include nine strategies that City leaders, staff, and other partners can use to inform departmental actions, guide budget priorities and resource allocations. This plan also provides a framework for ongoing accountability.

| | Goals | Objectives | Strategies |
|-------------|--|--|---|
| Access | Access. ¹ Build and optimize the infrastructure necessary to deliver affordable, high-speed broadband internet to Harvey's residents, businesses, and anchor institutions. | Objective 1. Expand the reach of the Chicago Southland Fiber Network (CSFN) within Harvey. | Strategy 1. Work with local and regional partners to expand the fiber optic network in Harvey and the broader Southland region. |
| | | Objective 2. Ensure that all of Harvey's residential areas have the option to access broadband services by 2026. | Strategy 2. Encourage and incentivize internet service providers (ISPs) and wireless carriers to provide affordable, high-speed internet to Harvey's residents, businesses, and institutions. |
| | | Objective 3. Establish a citywide network of free wifi hotspots, with at least one hotspot in each of Harvey's six wards as grants are announced. | Strategy 3. Establish an array programs, hotspots, and public computer centers (PCCs) through which residents can access Harvey's broadband network and services. |
| Adoption | Adoption. ² Ensure the equitable distribution and delivery of broadband infrastructure and services. | Objective 1. Decrease the "Digital Divide" or gap between the City and the greater Chicago region by 50% by 2025. | Strategy 1. Secure and leverage governmental, private, and civic sector resources to increase residents' access to discounted computers and laptops. |
| | | Objective 2. Increase the percentage of households with a computer 10% by 2026. | Strategy 2. Continue to participate in regional initiatives and collaboratives that are focused on improving digital literacy, expanding broadband access, and addressing the digital divide. |
| | | Objective 3. Increase the percentage of households with a broadband subscription 10% by 2026. | Strategy 3. Prioritize and advance policies, programs, projects, and public-private partnerships that support the equitable distribution of broadband infrastructure and services to end users. |
| Use | Use. ³ Maximize the benefits and value created through end users' use of broadband by increasing digital literacy. | Objective 1. Support the expansion of programs that provide digital literacy education and training to Harvey residents. | Strategy 1. Support the expansion of digital literacy education and training at Thornton Township Highschool, the Harvey Public Library, South Suburban College, and other educational institutions. |
| | | Objective 2. Increase Harvey residents' participation in tech-focused workforce development programs. | Strategy 2. Ensure that Harvey's youth and residents are equipped for 21st economy careers through partnerships with workforce development organizations. |
| | | Objective 3. Establish a program that expands Harvey's youth and students access to high-tech careers. | Strategy 3. Help promote and cultivate a high-tech industry cluster in Harvey through the City's economic development efforts and infrastructure investments. |
| > | Execution | ✓ Clear accountability and leadership ✓ Robust, multi-source funding | ✓ Multi-stakeholder engagement and partnerships ✓ Clear objectives and metrics |

THE CONNECTED COMMUNITY



Next Steps

ACCESS

STRATEGY 2

11 11

Encourage and incentivize internet service providers and wireless carriers to provide affordable, high-speed internet to Harvey's residents, businesses, and institutions.

Encourage the establishment of a Fixed Wireless Internet Service Provider (WISP) Network. Fixed wireless internet service providers (WISPs) deliver reliable, affordable broadband to customers in fixed locations such as residences, businesses, and schools. Fixed wireless is the fastest-growing sector of the broadband industry, characterized by costeffective deployment, rapid technology innovation, and many credible new entrants.



RECOMMENDATION. Encourage the establishment of a Fixed Wireless Internet Service Provider (WISP) Network.

11 11

Fixed wireless internet service providers (WISPs) deliver reliable, affordable broadband to customers in fixed locations such as residences, businesses, and schools.

Fixed wireless is the fastest-growing sector of the broadband industry, characterized by cost-effective deployment, rapid technology innovation, and many credible new entrants. Networks can be built and upgraded rapidly at a fraction of the cost of those based on DSL, fiber, cable or satellite technologies.



RECOMMENDATION. Encourage the establishment of a Fixed Wireless Internet Service Provider (WISP) Network.

11 11

- Identify fiber backhaul and antenna locations. The City has identified two potential antenna locations including the Harvey YMCA and Ingalls Memorial Hospital.
- Establish fixed wireless network. The City is seeking \$250,000 in seed money to cover startup costs (e.g., capital expenses, business expenses to support network buildout until a subscriber base is established to sustain network costs, and modem subsidies for households).



RECOMMENDATION. Encourage the establishment of a Fixed Wireless Internet Service Provider (WISP) Network.

11 11

PCs for People Business Model

- PCs for People offers high speed 4G LTE internet service starting at \$15.00 per month with no data caps or throttling. Plans are prepaid with no credit check or hidden fees. Devices can be picked up in person via distribution partners or purchased online and received within 5-10 business days.
- PCs for People works with two types of devices and networks designed to offer lowcost broadband access for single-family homes (as well as residents in multi-family buildings for whom other service is not available): mobile hotspots available nationwide using national carrier networks, and modems using PCs for People's own fixed wireless networks in targeted neighborhoods.
- Hotspot devices are \$60-90 (one-time purchase) and service plans are available starting at \$15-16 per month with even lower cost prepaid multi-month service packages sometimes available for clients picking up devices in person. Typical mobile hotspot download speeds are 4-35Mbps and upload speeds are 1-5Mbps. Subscriber eligibility requirements are based on PCs for People partnerships with national carriers.

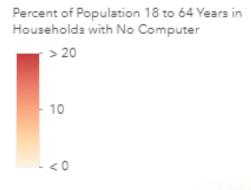


Service Area Statistics

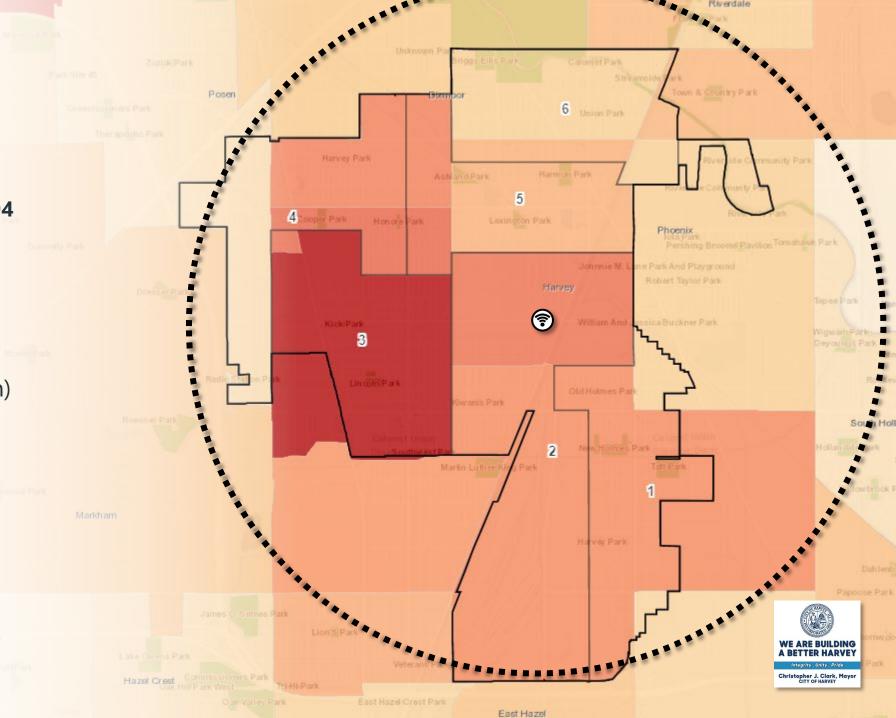
- Total population: 38,463
- Total number of business: **1,194**
- Total employees: 16,825
- Total Housing Units: 16,075

Antenna (YMCA location)

2-mile service area



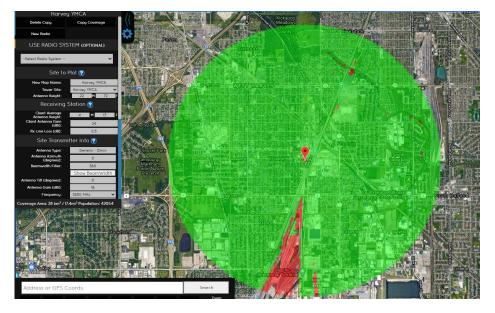
Source: ACS 5-Year Estimates (2016-2019)



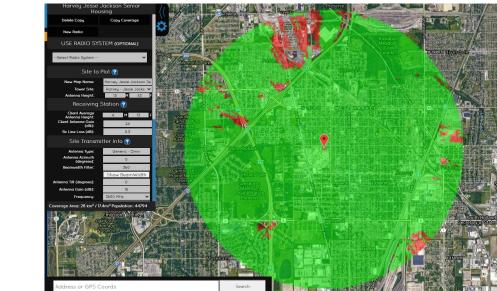
Potential Coverage Areas

- Antenna Site A: Ingalls Hospital
- Antenna Site B: Ingalls Hospital
- Antenna Site C: Ingalls Hospital

Harvey YMCA (B)



Jesse Jackson Jr. Senior Hospital (C)





Ingalls Hospital (A)

