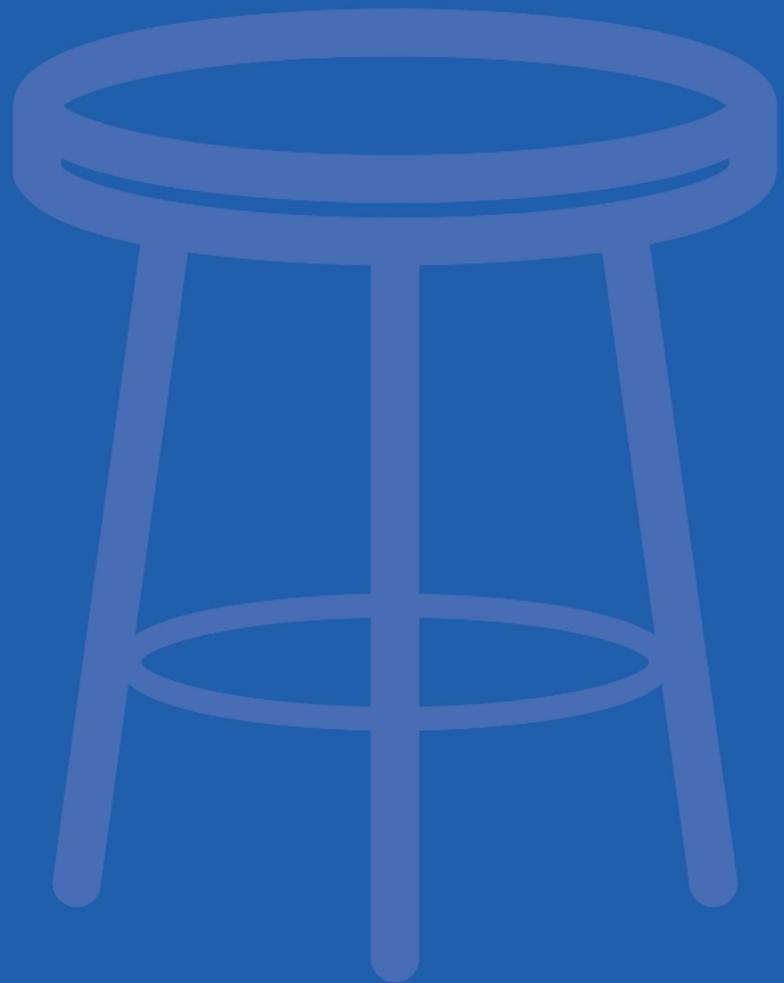


# Three-Legged Stool

---



- 6: Connectivity Strategies
- 7: Computers and Tablets
- 8: Digital Literacy





### Connecting residents to high speed Internet at home

One of the most important decisions for your community is deciding how to connect residents to at-home Internet service to reach your community's connectivity goals. ConnectHome's national Internet Service Provider (ISP) stakeholders and your community's local ISPs are key partners in this effort.

Connectivity models adopted by ConnectHome communities include:

- Individual ISP subscriptions
- Wireless hotspots and Internet-enabled tablets
- Property-wide Internet connections

These models are not mutually exclusive. Successful ConnectHome communities often adopted a **"menu approach," using more than one model** to address the needs of residents.

For example, because building wireless networks to deliver high-speed Internet service for all residents may take years, a community that commits to this course may still wish to work with local ISPs to sign up individual residents for Internet service during the interim.

## Case Study

*Memphis, TN*

### Adopting a “menu” approach

The Memphis Housing Authority chose a variety of connectivity strategies to respond to local needs.

First, it reached an agreement with T-Mobile, which is donating over 1,000 tablet computers connected to its data network at a discount, with the city of Memphis paying for the first two years of service. This strategy helped many families get connected, even as they were relocated as part of a Choice Neighborhoods revitalization project.

Second, the housing authority reached an agreement with Comcast to fully wire public housing properties, enabling residents in those properties to sign up for discounted Internet service.

Finally, for the properties not serviced by Comcast, the housing authority is encouraging households to sign up for AT&T's discounted Internet service, Access from AT&T.

## MODELS: Connecting residents

### MODEL 1: Individual ISP subscriptions

In buildings served by an ISP, residents can typically sign up individually for a high-speed Internet service subscription.

Because the normal cost of this service may be unaffordable for many HUD-assisted households, national ConnectHome stakeholders AT&T, Comcast, and Cox Communications offer sharply discounted Internet service **throughout their nationwide footprints.**

ConnectHome's ISP offers usually cost less than \$10 per month before taxes, waive all set-up fees, and are available wherever stakeholders provide service, as summarized in the table below.

# Playbook 6: Connectivity Strategies

National ConnectHome ISP Stakeholder	\$10/Month ConnectHome ISP Plan	Household Eligibility	Current ISP Customers	Past Debt Restrictions
		Only recipients of Supplemental Nutrition Assistance Program (SNAP)	Eligible	No debt less than 6-months old for AT&T fixed Internet service
		All HUD-assisted households	Ineligible	No Comcast debt less than 1-year old
		All HUD-assisted households with K-12 children	Ineligible	No Cox debt less than 7-years old

To better understand which ISPs serve your area and their offerings, consult the connectivity tools discussed in *Playbook 1: Getting Started*.

## Case Study

Rockford, IL

### Partnering with an ISP's local team

Taking advantage of the high number of units already wired for Comcast's Internet service, the Rockford Housing Authority worked closely with Comcast's local team to increase the number of residents actually signed up for service.

RHA began by helping Comcast identify units that were properly wired for service but lacked Comcast subscriptions. Comcast then offered to assign a sales representative to go door-to-door to enroll families. After conferring with its resident representatives, RHA permitted Comcast to implement its plan, which increased residents signups up for Comcast service. To further improve coordination, Comcast regularly shared enrollment numbers with the housing agency so that they could track their progress together.

As part of the arrangement, Comcast also made payments to the housing agency, which it directed toward digital inclusion initiatives

## Individual ISP Subscriptions

Pros	Cons
<ul style="list-style-type: none"> <li>→ Cost-effective <i>if</i> an offer is available and buildings are already connected</li> <li>→ ISPs can help publicize offers to residents</li> </ul>	<ul style="list-style-type: none"> <li>→ Requires residents to individually contact ISPs, navigate the enrollment process, and pay service costs</li> <li>→ Past debt restrictions may limit eligibility for low-cost offers</li> <li>→ May be impractical, if buildings lack preexisting service</li> <li>→ Difficult to track progress without ISP cooperation</li> </ul>

### TIPS: Exclusive marketing agreements

In exchange for exclusive marketing rights at a property, ISPs sometimes offer to install infrastructure in a building supporting multiple services (for example, cable, Internet, phone); discount Internet service property-wide; or make payments to property owners. Payments might be based on the size of the property or on the amount of revenues the ISP earns from the property's residents.

These agreements can be structured in a way that mutually benefits housing agencies, residents, and ISPs. But keep in mind that, if the provided services prove inadequate, the combination of an infrastructure installed by a single service provider paired with an exclusive marketing agreement can make it difficult—legally and practically—for an owner to curb the provider's access to the building in favor of a competitor. For these reasons:

**Seek the best deal for your residents.** Ask about free installation, discounted Internet service, forgiveness of residents' outstanding debts, customer service, and the size of upfront and monthly payments from the ISP.

**Ask housing agencies and owners in neighboring communities about their experiences.** Communities that learn what other communities have negotiated are better positioned to obtain favorable provisions. EveryoneOn is another valuable resource.

**Clarify owner rights** to terminate the agreement and bring in an alternative provider if things go poorly.

**Consult legal counsel early.**

# Playbook 6: Connectivity Strategies

## Case Study

Albany, GA

### Paying for residents' ISP subscriptions

In 2016, the Albany Housing Authority and EveryoneOn worked closely with AT&T, an anonymous donor, and a local bank to help residents not only sign up for Internet service but also *pay* for it. The arrangement works as follows:

**Setting up individual bank accounts.** The housing agency and EveryoneOn set up bank accounts for every household interested in enrolling in ConnectHome's *Access from AT&T* affordable Internet offer. To keep costs down, the housing agency's banking partner agreed to waive all fees associated with the accounts.

**Enrollment and linking.** The housing authority and EveryoneOn then assisted interested households in enrolling in Access from AT&T and linking each household's AT&T account to the household's newly created bank account.

**Automatic payment.** Each month, the donor disburses \$10 into each household's new bank account. Then, using the account's "autopay" feature, the bank account automatically pays the household's \$10 per month AT&T bill.

### TIP →

Consider this adoption strategy especially for connecting residents who are in transition or will be moving (for example, in connection with Choice Neighborhoods or Rental Assistance Demonstration revitalization programs). Where coverage is available, wireless hotspot connections can be an effective approach for ensuring continual access to the Internet.

### MODEL 2: Wireless hotspots and tablets

One of the quickest and easiest connectivity solutions available to your community may be purchasing wireless hotspots or Internet-enabled tablets in bulk and distributing them to unconnected households. The hotspots or tablets provide accessible high-speed Internet service, either through a computing device connected to the hotspot, or directly through the Internet-enabled tablet. This solution may be particularly attractive where properties are not properly wired for Internet, or where residents face barriers to signing up for Internet service on their own.

Many ConnectHome communities embraced this connectivity strategy during their first year. Some purchased Sprint's "Spark" hotspot devices and distributed them to unconnected families for four years of free Internet service (subject to monthly data limits). Others took advantage of T-Mobile's ConnectHome offer and paid for T-Mobile wireless service (at highly discounted prices) on tablets donated by T-Mobile.

## Wireless Hotspots and Internet Enabled Tablets

Pros	Cons
<ul style="list-style-type: none"><li>→ Quickest and cheapest strategy if buildings lack physical connections</li><li>→ Can provide connections and devices directly to selected populations (for example, families with children)</li><li>→ Can free residents from having to enroll or pay service costs on their own</li><li>→ Unconstrained by past resident debt</li><li>→ Residents can stay connected anywhere within the ISP's service area</li><li>→ Hotspots and tablets can be transferred and reissued to incoming households</li><li>→ Easy to track enrollment</li></ul>	<ul style="list-style-type: none"><li>→ Monthly data caps may restrict robust use, such as watching videos, resulting in significantly slower speeds for the month</li></ul>

## Case Study

*New York, NY*

### A huge deal

In December 2016, New York City and the New York City Housing Authority (NYCHA) announced an agreement with ConnectHome national stakeholder T-Mobile to provide 5,000 Internet-enabled tablet computers to families living in public housing in the Bronx.

Each tablet was donated by T-Mobile and is connected to high-speed Internet through the T-Mobile cellular data network in NYC. NYCHA organized a process for identifying unconnected families and distributing the tablets. Recipients not only get the tablet at no cost, but also get free Internet service for two years.

New York City's Department of Information Technology and Telecommunications dedicated \$1.2 million to leverage a special T-Mobile offer of heavily discounted Internet service. T-Mobile also offered families free instruction on how to use their new Internet-enabled tablets.

# Playbook 6: Connectivity Strategies

## MODEL 3: Property-wide Internet connections

Some connectivity solutions extend by design to **every** unit in a property. Three types of property-wide Internet connections seen in ConnectHome pilot communities are described below:

Type of Property wide Internet Connection	Description	Payment
<b>Wireless Network</b>	Free wireless Internet reaches every unit (like a dorm or hotel)	Housing agency pays for installation, management, and ongoing operation
<b>Google Fiber</b> <i>(available only in select locations)</i>	Direct fiber optic connections deliver Internet to each unit	Google Fiber covers costs for installation and maintenance <i>(only for select public housing agencies)</i>
<b>Bulk-Service Agreement</b>	Wired connections provide Internet to every unit	Housing agency makes a monthly payment to the connecting ISP

Communities that opt for this model view Internet access in essence as a utility, like electricity and gas, that should be available in every household. By not asking residents to pay, this model removes cost as a barrier, thereby addressing the top reason that unconnected families do not have Internet at home.

Property wide Internet Connections	
Pros	Cons
<ul style="list-style-type: none"> <li>→ Provides automatic connectivity</li> <li>→ Eliminates barriers for residents</li> <li>→ Connects large numbers of residents</li> <li>→ Past resident debt irrelevant</li> <li>→ Easy to track connectivity and progress</li> </ul>	<ul style="list-style-type: none"> <li>→ Initial investment may be required</li> <li>→ Heavy planning required</li> <li>→ First connections can take time</li> <li>→ Quick results unlikely</li> </ul>

## Case Study

Washington, DC

### TIPS →

#### **Learn from housing agencies with network-building experience**

Learning early about upfront costs, ongoing maintenance and upgrade expenses, and the resources necessary to sustain a network will help your community select the right strategy.

#### **Work with your local jurisdiction's chief technology office**

They are typically responsible for the management of technology across local government buildings in your jurisdiction. The office may have already made investments that you can leverage in planning and building a wireless network.

## Leveraging DC's broadband network

In its first year of ConnectHome, dcConnectHome connected over 1,700 public housing households to free wireless Internet. It was able to achieve this impressive result by building upon DC's municipal broadband system, DC-Net.

Thanks to grants from the federal Broadband Technology Opportunities Program (BTOP), the city had been able to expand DC-Net and was providing Internet service to the housing authority's management offices. Working closely together, the City and housing authority installed special directional antennae to extend wireless Internet connectivity from the housing authority's management offices to several public housing properties. This enabled public housing households within reach of the wireless signal to achieve free connectivity.

Over the year, the housing authority spent about \$70,000 for wireless connectivity equipment, deployment, and testing, and another \$20,000 to verify connectivity. The city also incurred costs. Even so, the cost-per-resident was relatively low, given the large numbers of residents connected.

## Playbook 6: Connectivity Strategies

### Making an Impact: Kansas City



*Tamara Butler is a community advocate for digital inclusion through ConnectHome*

Through ConnectHome, Google Fiber worked with the Kansas City Housing Authority to offer ultra-high-speed Internet service at no cost to residents in select public housing authority properties. Both the housing agency and Google Fiber are partnering with community organizations to provide digital literacy training to bridge the digital divide, especially for families with K-12 students.

Tamara Butler was one of ConnectHome's first connected residents in Kansas City. She used her high-speed Internet connection to apply for and get a job. She also purchased a car so she could transport her three sons. Her youngest son, Willie, enjoys watching PBS Kids programming on YouTube. Tamara is working with other residents to promote the availability of free Internet access in her West Bluff community.

Across Kansas City, ConnectHome stakeholder ISPs are working to connect nine public housing properties, reaching more than 1,300 families in the metro area. They are also working to drive awareness about the importance of the Internet and grow the digital equity ecosystem.