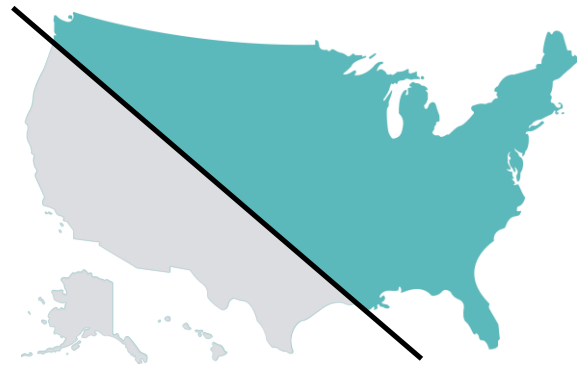


# 5G For Home Broadband

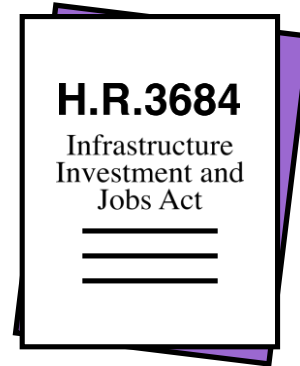
A key new tool to get more Americans connected

## New federal funding gives states opportunity to close the digital divide

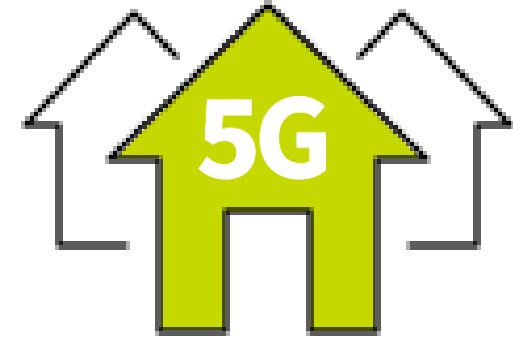
And a new wireless offering—5G for home broadband—can help



The digital divide is real—and has real consequences



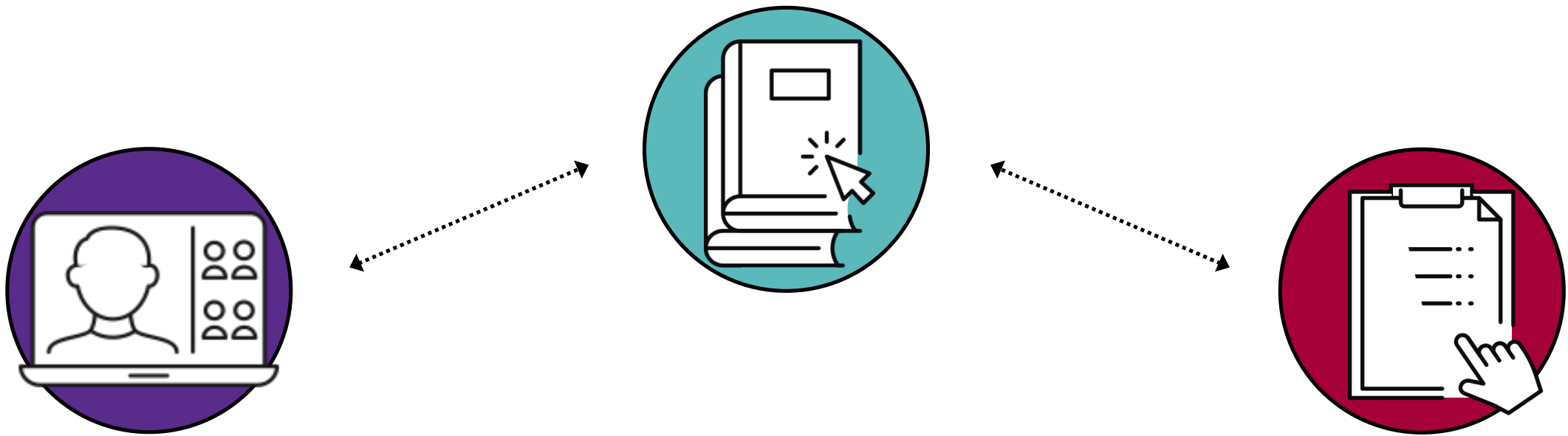
Congress' infrastructure package can help states and territories close it



5G for home broadband is part of the solution

## The pandemic highlighted state of today's digital divide

91% of Americans have wired/wireless connection, but divide remains for too many



### Internet access is not a luxury in a connected society

Broadband connects people to new opportunities, education, health care, and jobs.

## Wireless broadband is key component in bridging the digital divide

The pandemic illustrated how the wireless industry is a vital and committed partner

**2.4M**

**UNSERVED CHILDREN  
AND COUNTING**

supported by wireless  
industry with devices & data  
during pandemic

**9.1M**

**CONNECTED DEVICES  
(INCLUDING MOBILE HOTSPOT DEVICES)**

requested in 1st round of  
FCC school funding

**68%**

**EMERGENCY BROADBAND  
BENEFIT SUBSCRIBERS**

have chosen mobile  
broadband service

**27%**

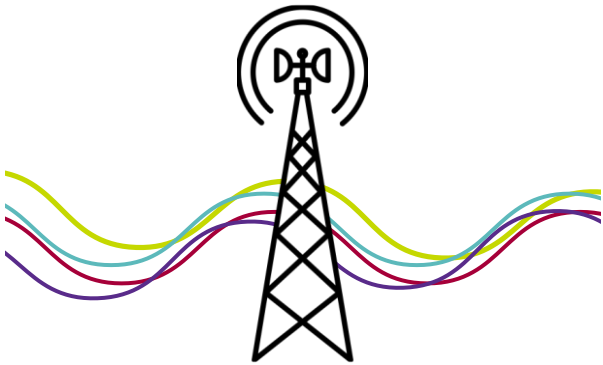
**OF INDIVIDUALS MAKING  
LESS THAN \$30K/YEAR**

are smartphone-only  
broadband users

## States and territories have access to Congressional funding to encourage broadband deployment

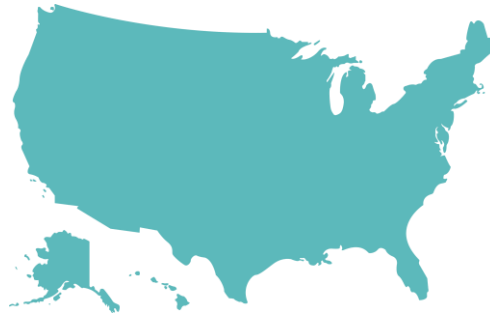
Congress' bipartisan infrastructure bill provides \$42.45B for broadband buildout

The bill's Broadband Equity, Access, and Deployment (BEAD) program provides:



# \$42.45B

for broadband infrastructure in rural, unserved and underserved communities



# \$ Billions Available

in grants per state and split among U.S. Territories\*



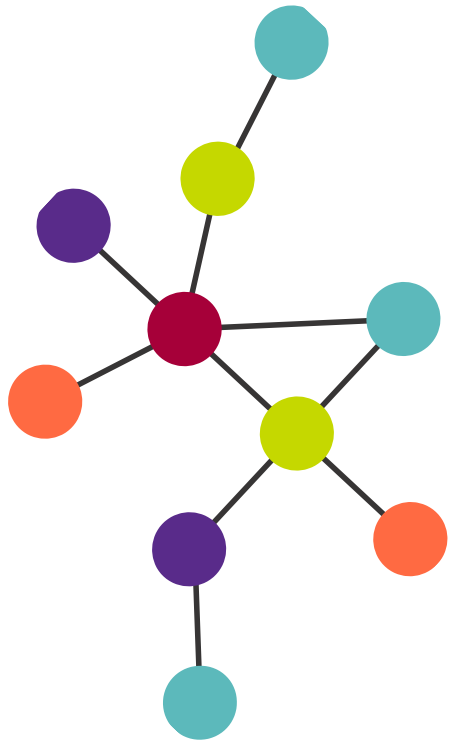
# \$4.2B

in funding set aside for notably unserved or high-cost areas

\*States will receive at least \$100 million each under BEAD

## Connecting your state or territory through the BEAD program

BEAD funds are set aside for states and territories to bridge the digital divide



### BEAD grants can be used to:

- Provide service in unserved and underserved areas.
- Connect community anchor institutions—such as public housing or community support organizations—that don't have gigabit connectivity.
- Collect broadband data, conduct broadband mapping, and plan for broadband needs.
- Install broadband infrastructure or provide reduced-cost service in multifamily residential buildings.
- Encourage broadband adoption, including through programs to provide devices.



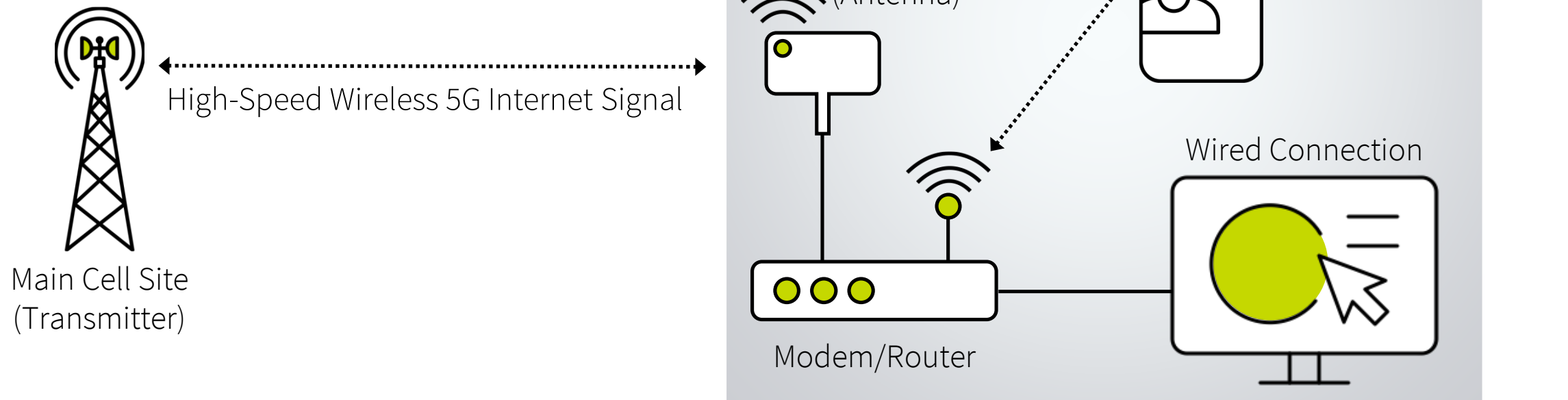
## 5G for home broadband/a key new tool to get more Americans connected

The wireless industry's 5G platform also provides the speed and capabilities to offer exciting new 5G applications, including 5G for home broadband (also known as 5G fixed wireless access). With the pandemic making clear the realities of our country's digital divide, America's wireless industry is now bringing its competitive energy and investment to the home broadband market.

## States and territories can use this funding to bring the power of wireless to home broadband

5G for home broadband is an exciting new option for at-home internet access

5G for home broadband creates an internet connection by sending wireless signals via spectrum between a cell site and an antenna placed on/near customer's home.



## Accenture embraced broadband policy that is inclusive of wired and wireless

5G for home broadband is an exciting new option for at-home internet access



5G “fixed wireless ...offers a future proof and cost-effective option for delivering high-speed broadband, including in rural areas of America.”

“Advancements in 5G network technologies have significantly improved the download, upload and latency capabilities of [fixed wireless services]”

## 5G for home broadband provides ample speeds and capacity for American families

5G for home broadband can simultaneously support many diverse applications

5G for home broadband offers:

# 100 Mbps-1 Gbps

Downstream speeds



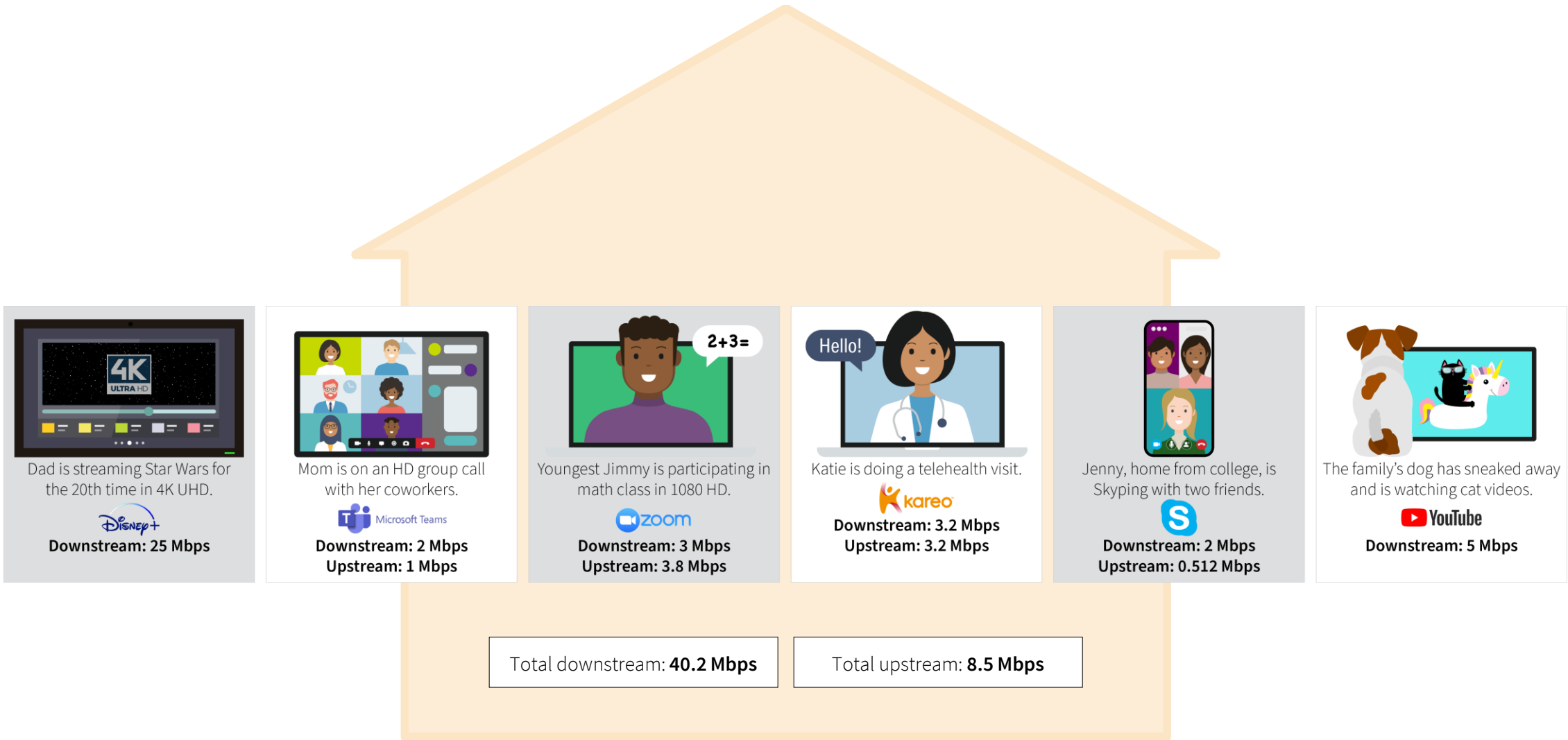
# 10-15x

Increase in capacity compared to LTE

which can easily support simultaneous streaming, video conferencing,  
homework, gaming and more

# What the Miller Family can do with 100/20 Mbps simultaneously

Policymakers should focus on the actual connectivity needs of a U.S. Household.



## Consumers in underserved areas are already benefiting from 5G for home broadband



“There’s a wait list to get internet to your house...5G home internet is so much faster...”

—JESSICA



“I was surprised the 5G signal reached all the way out here... I was amazed how fast it was...”

—KYLE



“5G for home broadband is the fastest internet I’ve ever had at my house...”

—PATRICK

## 5G for home broadband is being aggressively deployed across the country

5G for home broadband will reach 16x more homes with 100 Mbps+ downstream speeds by 2025

And as more licensed spectrum comes online, more 5G to the home services will be able to offer increasing speeds, **up to 1 Gbps.**

### 5G for home broadband—bringing new competition and connections

TODAY

13.5M

homes with access to 100 Mbps 5G  
home broadband service

BY 2025

212M

homes with access to 100 Mbps 5G  
home broadband service

## 5G for home broadband is being aggressively deployed across the country



“But with 5G, we're able to unlock massive network capacity to deliver fixed wireless access to homes across the nation, including in small towns and rural areas.”

— **Neville Ray, President of Technology**



“One of the great use cases we can unlock with millimeter wave and this additional C-band spectrum is fixed wireless access. We're continuing to aggressively build on our network to support broadband use cases...”

— **Kyle Malady, EVP & CTO**



“[W]hile both mobile and fixed broadband usage is growing, we're actually seeing an increased dependence on the fixed network as it provides the performance and capacity customer applications require.”

— **Jeffery McElfresh, CEO of AT&T Communications**



“We already have a significant number of customers connected with fixed wireless via LTE, and deploying that technology has helped to raise broadband connectivity significantly in underserved areas of the country. And we believe that 5G can really be a game changer in this area.”

— **LT Therivel, President & CEO**

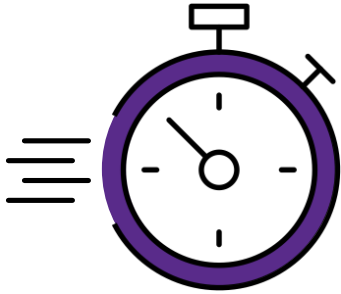


“...A fixed wireless solution delivering true broadband speeds will bring improved broadband options to potentially millions of consumers.”

— **Tom Cullen, DISH EVP of Corporate Development**

## 5G for home broadband service can help states and territories deploy broadband quickly and efficiently

Accenture finds that 5G for home broadband has superior economics and network efficiencies



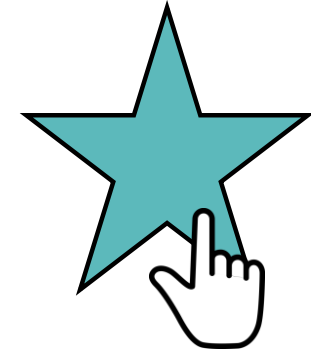
### **FAST TO DEPLOY**

Eliminates need for deployment of last mile fixed infrastructure, thanks to wireless-based connectivity to the home.



### **COST-EFFECTIVE TO DEPLOY**

Can reduce costs of last-mile connectivity by 40% (SNS Telecom)



### **EASY INSTALL**

Home install time is under an hour and can be done without a technician visit.

“Easy to setup. Plug it in, download the app and follow a few simple instructions. You’re online in minutes.” – National Wireless Provider

# How the BEAD program works for your state

Encourage your state or territory to apply to NTIA to receive grant funding for your broadband projects

## What your state or territory should know before applying:





Funding	Application	Projects
<ul style="list-style-type: none"><li>• \$ Billions available for each state, D.C., and Puerto Rico*</li><li>• \$100M divided among U.S. Virgin Islands, Guam, American Samoa and the Northern Mariana Islands</li><li>• 20% allocated after initial proposal, with remainder allocated after final proposal</li></ul>	<ul style="list-style-type: none"><li>• Letter of Intent</li><li>• Five-Year Plan</li><li>• Initial Proposal</li><li>• Final Proposal</li></ul>	<ul style="list-style-type: none"><li>• Connect the unserved and underserved</li><li>• Target high-poverty areas</li><li>• Offer high-speeds</li><li>• Can be completed quickly</li></ul>

\*States will receive at least \$100 million each under BEAD

## 5G for home broadband is a quick and cost-effective way states seeking to invest infrastructure funding can connect Americans

States and territories can award BEAD subgrants to a mix of wired and wireless solutions, including 5G for home broadband projects.

### Wireless carriers will invest in the infrastructure to connect unserved and underserved communities through 5G for home broadband, providing:

-  Quick build-outs of high-speed broadband service capable of at least 100/20 Mbps.
-  Low latency for real-time, interactive applications.
-  Reliable, low-cost service.
-  Enhanced 5G coverage.

ctia<sup>TM</sup>

The logo consists of the lowercase text "ctia" in a white, sans-serif font, followed by a trademark symbol (TM). Below the text is a horizontal row of seven white dots of uniform size.