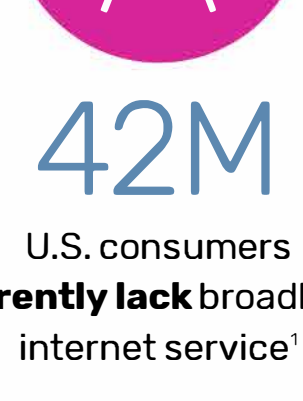


# Don't Let IPv4 Exhaustion Stall Your Growth

Regional and rural broadband is set to boom.  
*So is the cost to buy IPv4 address space.*

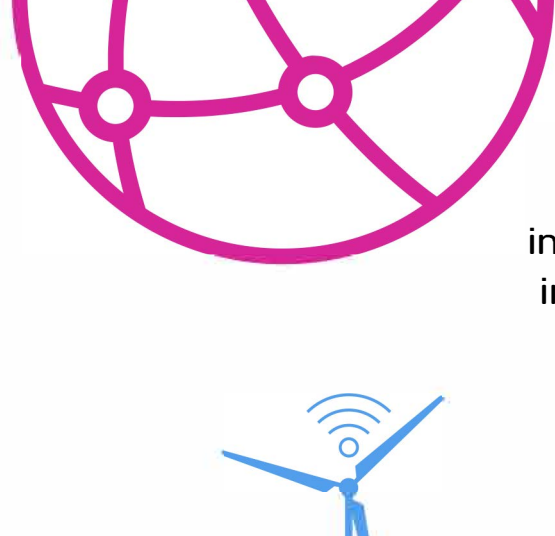
Closing the digital divide will bring millions—or billions—  
of **new subscribers into the market**



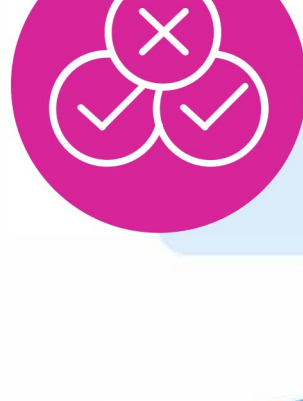
**42M**  
U.S. consumers  
**currently lack** broadband  
internet service<sup>1</sup>



**1.9B**  
people in Asia-Pacific  
**lack internet  
connectivity**<sup>2</sup>



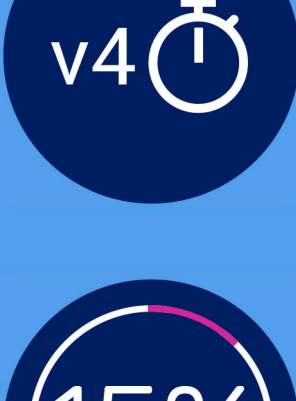
**Government-led**  
initiatives are **pumping billions**  
into rural broadband programs



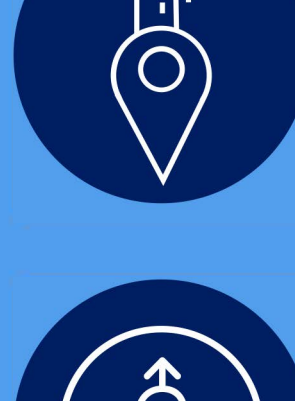
**41%**  
of E.U. households **aren't**  
**covered** by next-generation  
access technology<sup>3</sup>



That's a lot of new connectivity—  
**at a potentially crushing price**



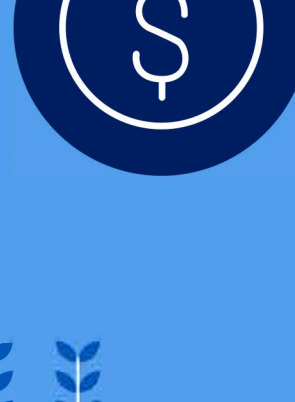
**Free**  
IPv4 addresses **fully**  
**allocated by the**  
**RIR**—leading to IPv4  
exhaustion



**\$50**  
is the cost of each  
IPv4 address now,  
**and prices rise**  
**every year**



**That could add**  
15% to annual OpEx  
per location

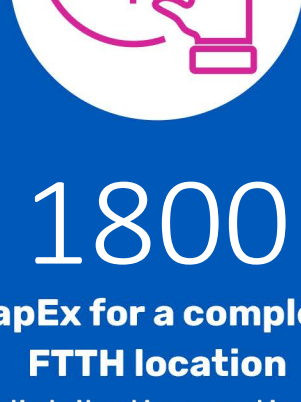


**And by 2024**, each IPv4  
address may cost  
**\$65+**



10,000 IP addresses now cost up to \$500,000.

**What else could that buy?**



**1800**  
**CapEx for a complete**  
**FTTH location**  
(distribution, optical  
networking, feeder,  
line, control cards, etc.)



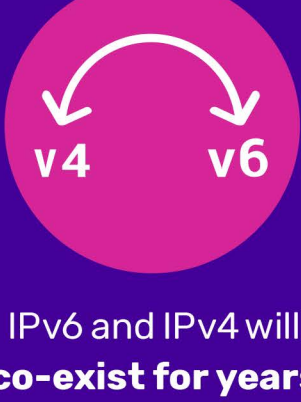
**278**  
additional FTTH  
locations – **how many**  
**more customers can**  
**you serve?**



What about **IPv6**?



Conversion of existing  
IPv4 infrastructure  
is a **costly long-term**  
**project**



IPv6 and IPv4 will  
**co-exist for years**



**Less than 20%**  
**of websites**  
currently use IPv6<sup>4</sup>



Almost 2/3 of Google  
queries access the  
internet **using IPv4**<sup>5</sup>



As long as customers  
want IPv4 content,  
**you have to support**  
**IPv4 connectivity**



The **CGNAT** option

**10,000**  
new subscribers could only  
need **150 IPv4 addresses**

**Share**  
existing IPv4  
addresses to 64+  
subscribers to **solve**  
**IPv4 exhaustion**



**Reduce**  
IPv4 acquisition  
costs by **80%**

**Gain**  
time for more  
**gradual IPv6**  
**adoption** side-by-side  
with continued IPv4

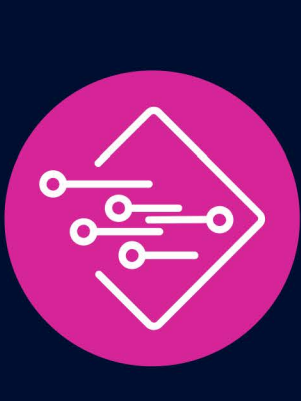
**Redirect**  
IPv4 acquisition  
costs to  
**business growth**

**Sell**

unused IPv4 addresses to capture  
**additional revenue**

**Invest for continuous migration**

Meet both short-term  
IPv4 needs and  
long-term IPv6  
needs through a  
**lifecycle approach**  
**to migration**

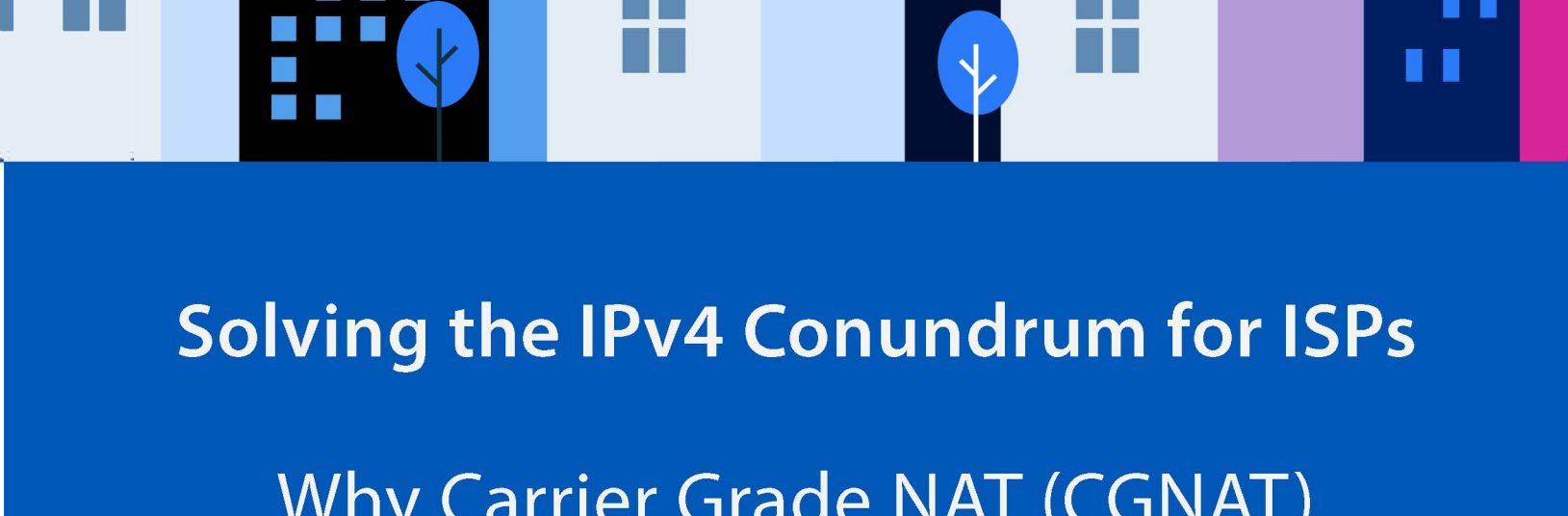


**Use CGNAT**  
to solve  
IPv4 exhaustion

Apply **advanced**  
**features** for  
transition between  
IPv4 and IPv6



Maintain a **seamless**  
**& secure subscriber**  
**experience**  
**throughout lifecycle**



**Solving the IPv4 Conundrum for ISPs**

Why Carrier Grade NAT (CGNAT)  
is the best solution for IPv4  
depletion and IPv6 migration

**Download our ebook**

**Contact ZCorum** to learn how you can extend the life of your IPv4 addresses by five times or more.

<sup>1</sup> BroadbandNow Research, "BroadbandNow Estimates Availability for all 50 States," 2021  
<sup>2</sup> European Commission, "Digital Economy and Society Index (DESI) 2020: Connectivity," 2020  
<sup>3</sup> DataReportal, "Digital 2020: Global Digital Overview Report," 2020  
<sup>4</sup> W4 Techs Web Technology Survey, July 15, 2021  
<sup>5</sup> Google IPv6 Statistics, July 15, 2021

