



Answering the Call:
Wireless for Good



A NOTE FROM CTIA’S PRESIDENT AND CEO

Despite numerous challenges over the past year, America’s wireless industry invested to offer greater coverage, bandwidth, speed, and seamless connectivity.

As we meet the requirements of increasingly wireless consumers and businesses—on the go or at home—we’re also committed to the imperatives of our planet and society: lowering emissions, providing equitable opportunities, connecting communities, ensuring safe communication, and more.

In this report, we’re proud to showcase the wireless industry’s commitment to corporate social responsibility (CSR) and environmental, social, and governance (ESG) objectives. These actions create better outcomes for all stakeholders and our world as a whole.

Mudit

CATALYZING CHANGE FROM COAST TO COAST

From the headquarters shown below, leading wireless providers and manufacturers—supported by thousands of retailers online and in stores—keep America connected.

- American Tower Corporation

Boston, MA

Assurant

New York, NY

Asurion

Nashville, TN

AT&T

Dallas, TX

Bluewater Wireless

Providence, RI

Boingo Wireless

Los Angeles, CA

Carolina West

Wilkesboro, NC

Cellcom

De Pere, WI

Cellular One

Show Low, AZ
- Chat Mobility

Emerson, IA

DISH Network

Englewood, CO

Ericsson

Plano, TX

General Motors

Detroit, MI

HTC America

Bellevue, WA

Intel

Santa Clara, CA

King Street Wireless

Alexandria, VA

Nokia

Dallas, TX

Qualcomm

San Diego, CA

QualTek

King of Prussia, PA
- Samsung

Ridgefield Park, NJ

Sinch

Atlanta, GA

Southern Linc

Atlanta, GA

Syniverse

Tampa, FL

T-Mobile

Bellevue, WA

Tristar License Group

Jackson, MS

UScellular

Chicago, IL

Verizon

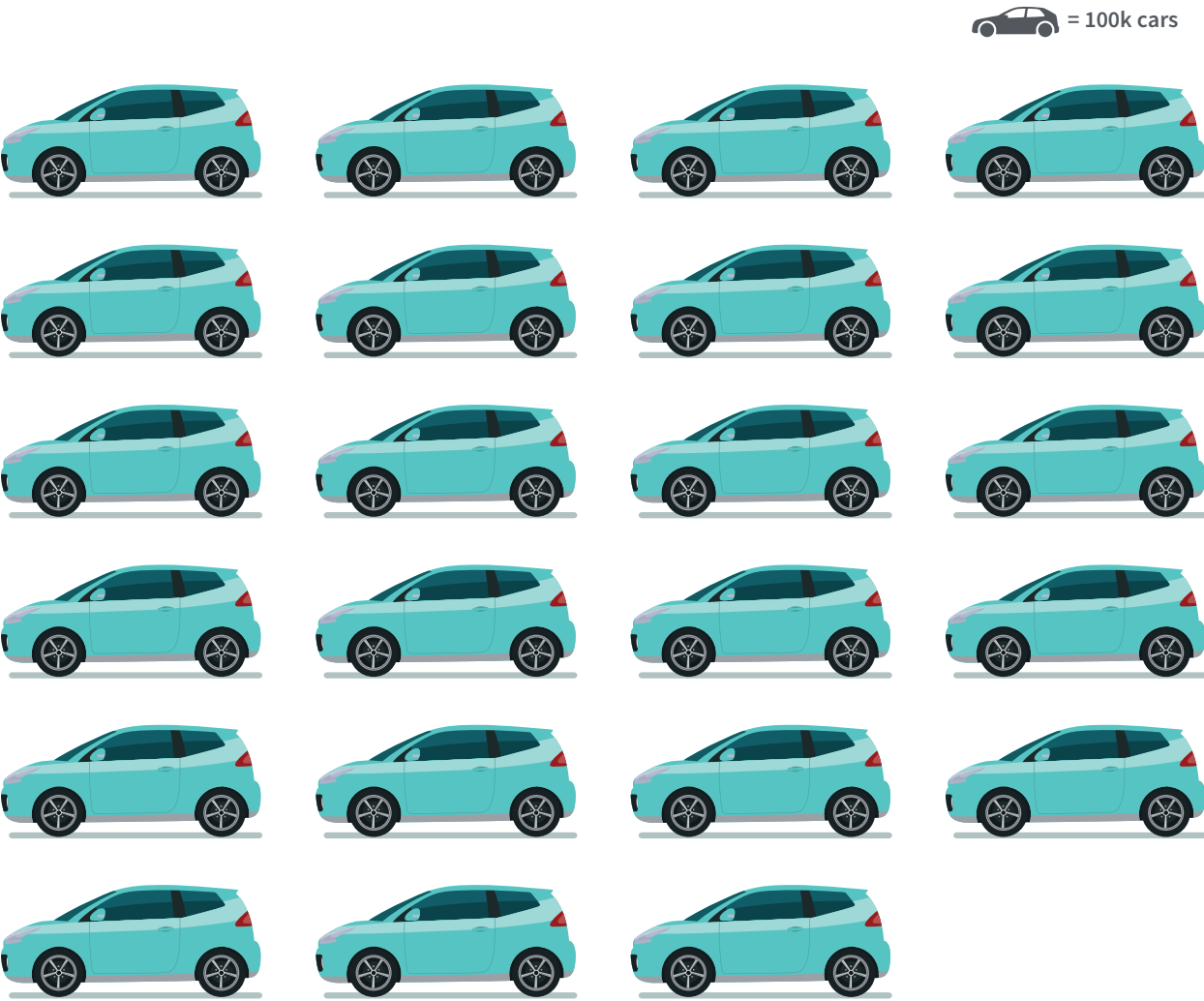
Basking Ridge, NJ

Our Planet

AMPLIFYING ACTION ON CLIMATE

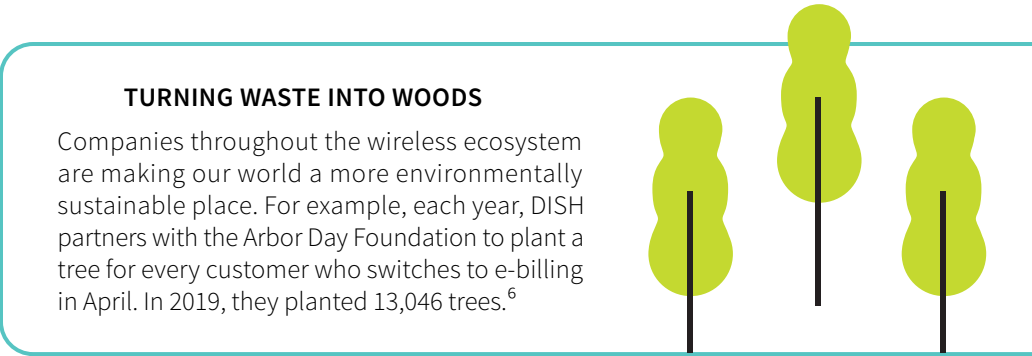
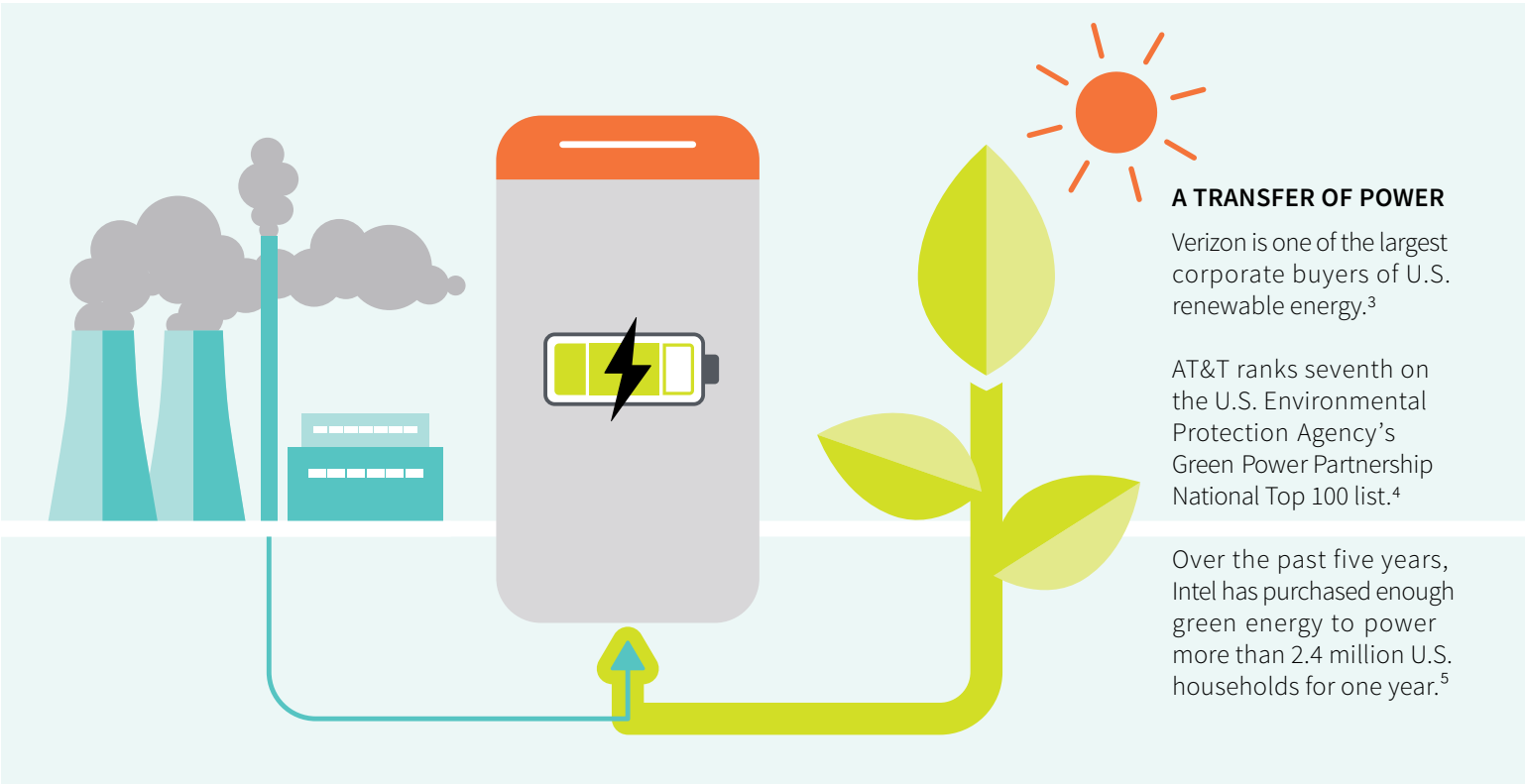
The wireless industry is committed to combating climate change, and 5G holds potential to enhance our industry’s energy efficiency and assist other industries’ efforts to mitigate climate change. The U.S. wireless industry is focused on reducing carbon emissions, embracing more sustainable practices, and constructing more resilient and energy-efficient networks.

From providers to manufacturers, U.S. wireless companies’ reduced emissions commitments would be equivalent to removing 2.3 million cars off the road per year.¹



While the Information and Communications sector represents just 1.4% of global emissions, we’re committed to shrinking this figure even as we continue to innovate, serve our customers, and accommodate exponential increases in data.²

This means tackling Scope 1 emissions (from the energy sources providers operate) and Scope 2 emissions (the electricity, steam, heating, and cooling power they purchase). At the same time, wireless providers and manufacturers are leading the way in renewable energy use.



Giving devices a smaller footprint

Throughout the wireless ecosystem, we’re designing and building with the future in mind. We’re prioritizing device and equipment recycling, resale, and reuse. Further, new device packaging meets sustainable guidelines and eliminates plastic trays and inserts.



HOW WIRELESS COMPANIES OPTIMIZE RESOURCES

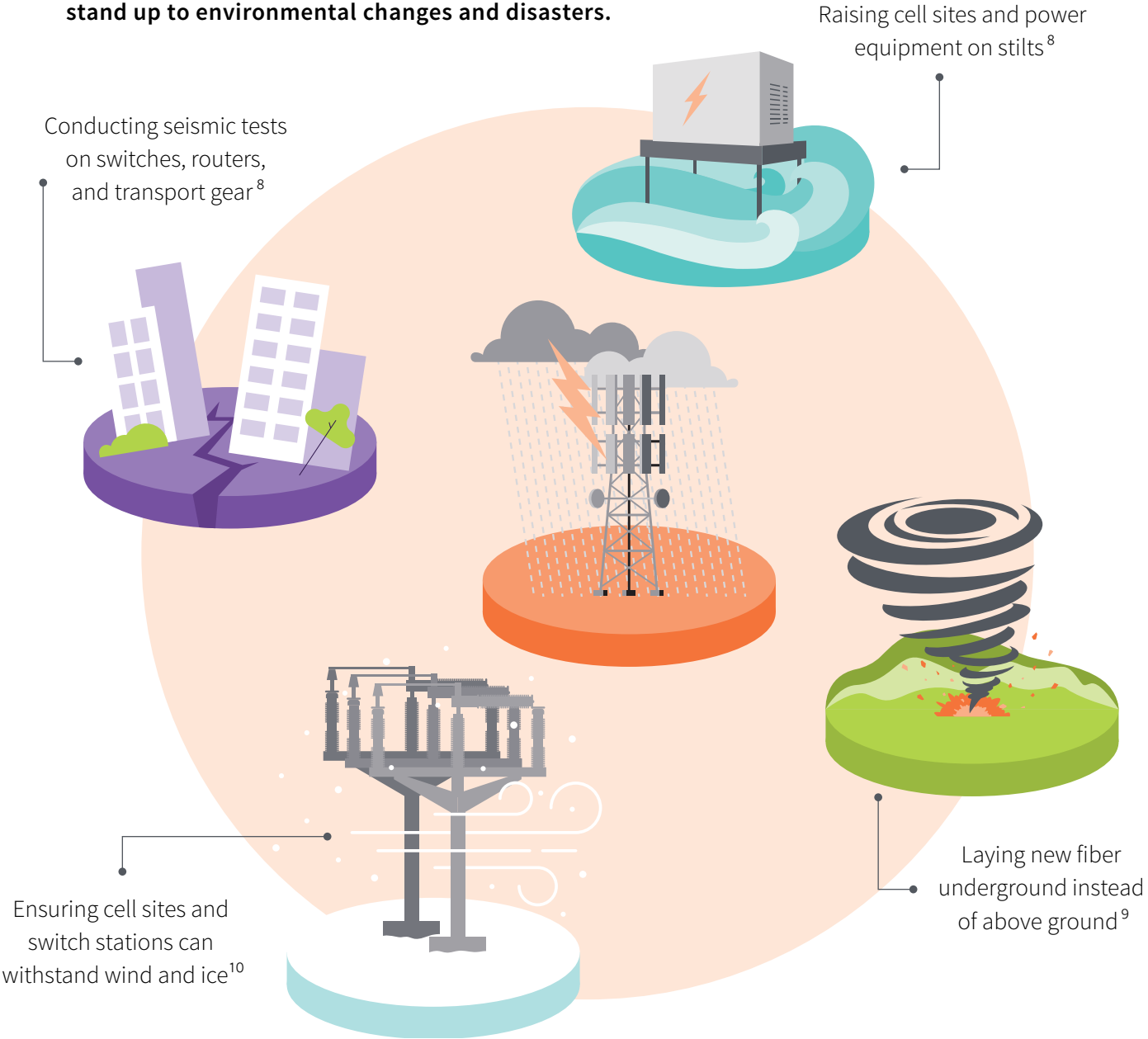
Since 2007, AT&T has refurbished or recycled 72.1 million mobility devices—AT&T, T-Mobile, and UScellular collected 18.9 million devices for recycling, resale, or reuse in 2020 alone.

Verizon collected an additional 35.6 million pounds of e-waste for recycling or reuse in 2020.

Regional wireless providers are also leveraging their networks' power to make a positive environmental impact in their communities. For instance, Cellcom, a wireless provider in Wisconsin and Michigan, partnered with the University of Wisconsin-Green Bay to collect and share environmental data on the health of local waterways. Wireless-connected sensors power real-time monitoring of water conditions in the lower Green Bay.⁷

Meanwhile, more resilient equipment and cell sites provide critical services during natural disasters.

Providers are going further to ensure wireless networks stand up to environmental changes and disasters.



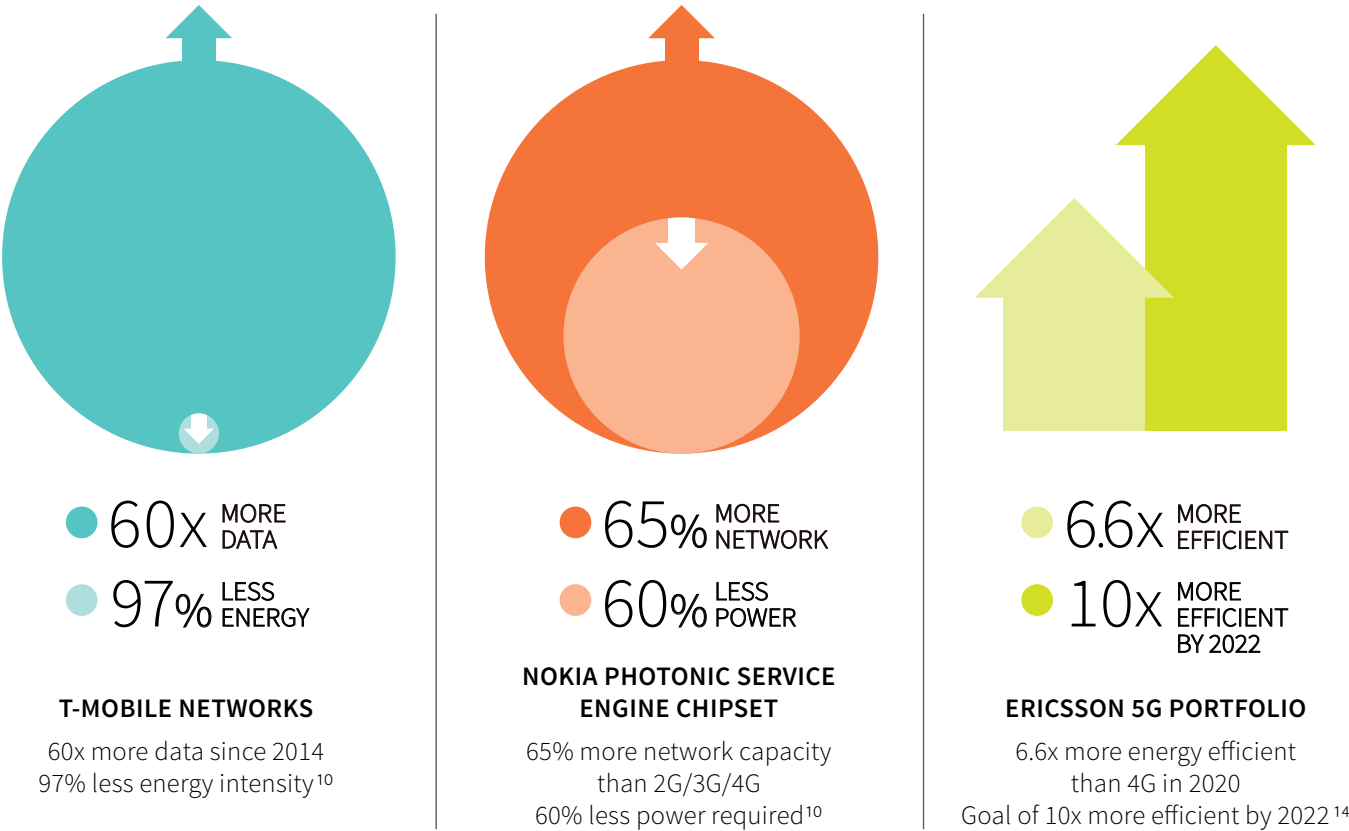
Additionally, providers are investing millions in disaster recovery programs¹¹ and emergency response teams to deliver charging stations, water, food, and other much-needed supplies to hard-hit communities.¹²

Modernizing to tackle climate change—an issue that impacts us all

Climate change affects everyone: individuals, businesses, and communities. Because America’s wireless industry workforce reflects the diversity of our country, companies in the wireless ecosystem are able to bring unique perspectives to the tools, practices, and partnerships used in our climate response. They’re able to create innovative solutions that meet the needs of all people—including those disproportionately affected by the changing climate.

AT&T and the Department of Energy’s Argonne National Laboratory have collaborated to create a climate change analysis tool that looks 30 years into the future to help the company prepare for climate-related extreme weather events. After starting with Florida, Georgia, North Carolina, and South Carolina, the data behind the tool is now being expanded to the contiguous U.S. and will be publicly available.¹³ Meanwhile, Verizon is using risk analysis data usually reserved for insurance companies to envision how climate change might impact network infrastructure and determine where it may need to harden networks.⁹

A more resilient wireless ecosystem requires more efficient, sustainable network technologies and power solutions. To this end, providers and manufacturers are exploring solutions to reduce energy consumption: automation and AI, innovations in chipset technology, single-radio access networks, and more.

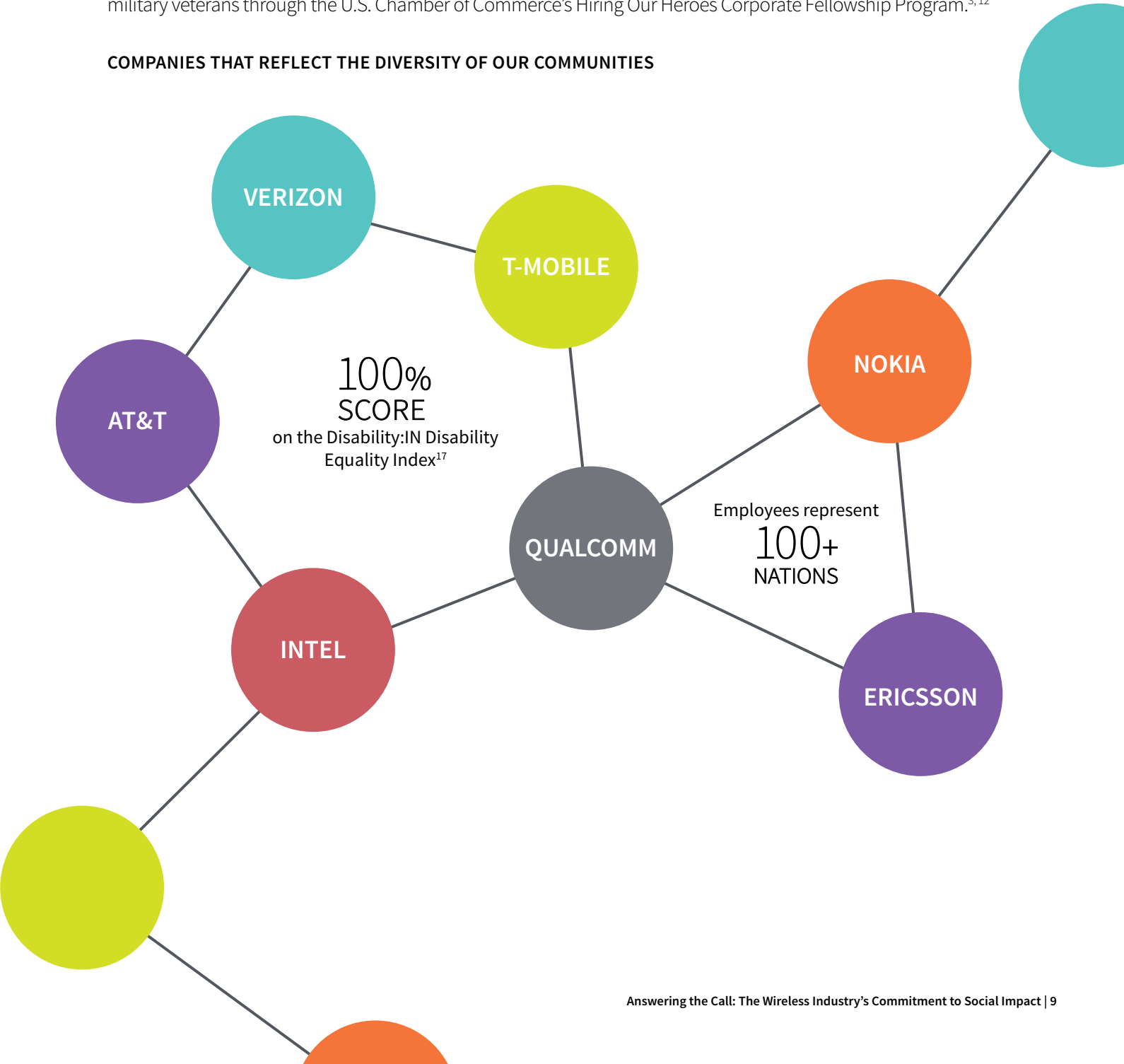


Our Employees
HEARING, RESPECTING, AND VALUING DIVERSE VOICES

Our industry’s commitment to diverse individuals, thoughts, and experiences is a longstanding and multifaceted mission.

Here are a few of many examples. In 2019, AT&T secured a place in the DiversityInc Hall of Fame for its commitment to workplace inclusivity and diversity, and last year was AT&T’s ninth straight year on the Military Times’ “Best for Vets” list.¹⁵ In 2020, the Disability Equality Index recognized AT&T and Verizon as two of their Best Places to Work for Disability Inclusion.¹⁶ Verizon and T-Mobile actively bring in perspectives of military veterans through the U.S. Chamber of Commerce’s Hiring Our Heroes Corporate Fellowship Program.^{3,12}

COMPANIES THAT REFLECT THE DIVERSITY OF OUR COMMUNITIES



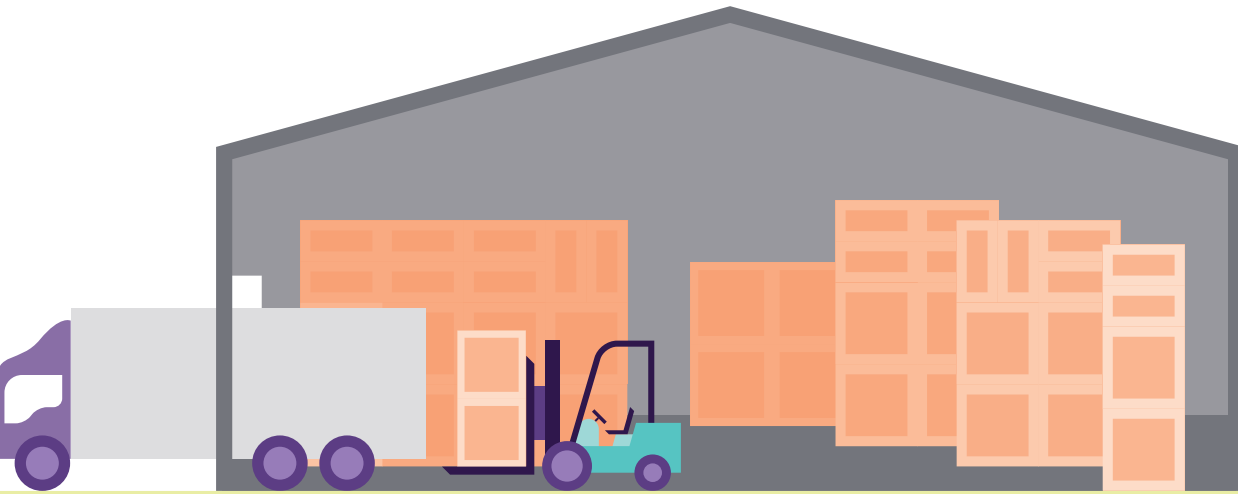
Building a wireless ecosystem for—and thanks to—all

Stronger wireless depends on people of color, women, veterans, and individuals in the LGBTQA+ and disability communities.

Throughout our supply chain, the wireless industry has worked tirelessly to include diverse vendors and encourage our vendors to include diverse suppliers of their own.


These efforts include AT&T's Supplier Diversity Program, founded in 1968,¹⁸ and T-Mobile's #BEYOU Scholarship Fund, established in partnership with the Greater Seattle Business Association, the nation's largest LGBTQ chamber of commerce.¹⁹ Verizon partners with World Wide Technology, the largest African American-owned company in the U.S., to broaden relationships with original equipment manufacturers.²⁰

Equipment manufacturers have risen to the challenge as well. As just one example, UScellular's Prime Supplier Program requires participants to have a diversity plan and submit quarterly results on diversity goals.²¹

An illustration of a warehouse scene. A purple truck is parked on the left. In the center, a teal forklift is lifting a stack of orange boxes. To the right, there are several tall stacks of orange boxes. The entire scene is set within a grey warehouse structure.


INVESTING IN OPPORTUNITY

In 2020, AT&T, Verizon, and T-Mobile spent **\$21.9 billion** with diverse suppliers. Intel spent \$1.2 billion—a **20% increase** from 2019—and Qualcomm **doubled** the amount of government subcontract work it directed toward diverse businesses.^{22, 23}


A small illustration of a teal forklift lifting a stack of orange boxes.

Supplying a support network


Companies throughout the wireless ecosystem offer a range of support, training, and advocacy services to help employees feel comfortable, protected, and encouraged to be themselves.

An illustration of a two-tiered birthday cake with teal frosting and white candles.

The NETwork, the employee resource group that promotes the African American experience at AT&T, just celebrated its 52nd year.²⁴

An illustration of a car in a blind spot, viewed through a rearview mirror.

UScellular hosted a CEO Action Check Your Blind Spots Tour to help employees recognize and address unconscious bias.²⁵

An illustration of a glowing orange lightbulb.

Verizon's Race & Social Justice Action Toolkit connects employees to the company's Black leaders as well as books, podcasts, films, and other learning tools.³

Driving diversity at all levels

Companies throughout the wireless ecosystem are committed to building workforces that reflect their principles of diversity, equity, and inclusion.

For example, AT&T's leadership development programs help support aspiring leaders within the company. Entering 2021, people of color made up nearly 46% of AT&T's workforce in the U.S.²⁴ T-Mobile's External Diversity and Inclusion Council brings in perspectives from community leaders in areas such as workforce recruitment and retention.¹² And Verizon's workforce includes employees like visually impaired Tech Consumer Advocate Sylvia Bernert and Customer Care Coordinator Kris Makande, an African American Navy veteran who identifies as gender-nonconforming.^{26, 27}

With **workforces** that are at least **45% people of color**, and **boards** that are at least **46% women or people of color**, the three major providers truly represent the users they serve.

Equipment manufacturers have been making similar progress. For example, more than half of Intel's workforce (56.2%) includes people of color.²⁸ Ericsson has 32% women in the executive team, exceeding its 2020 target to increase female representation across the organization.²⁹

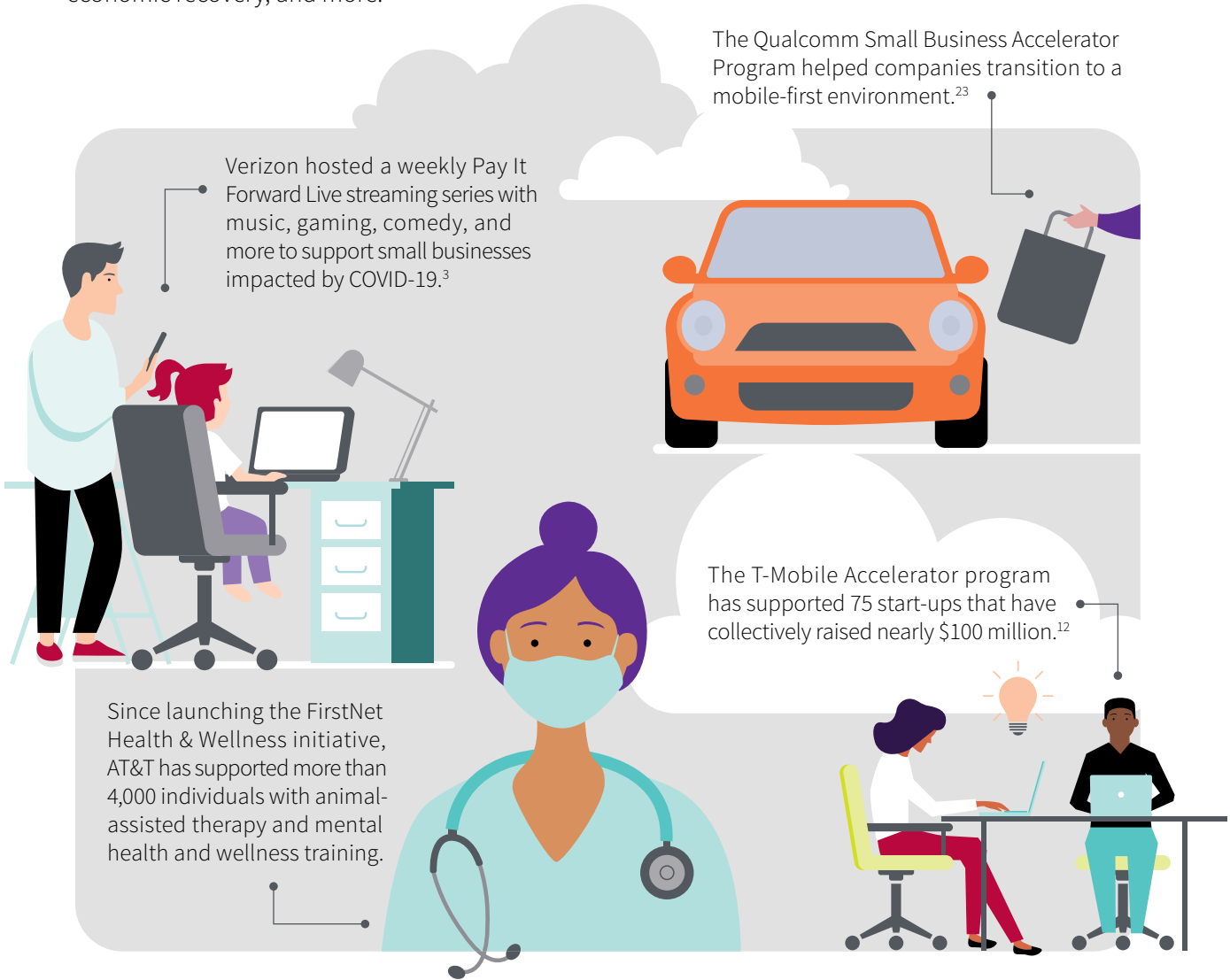
Our Communities

ISING TO THE CHALLENGE AND STAYING CONNECTED

In good times and bad, wireless provides essential services for students, small businesses, families, non-profits, and local economies. During the COVID-19 pandemic, each of these groups’ demands for wireless grew and evolved drastically.

Mobile voice and data surged almost overnight as shelter-in-place orders forced schools, offices, healthcare providers, and families to collaborate significantly through virtual channels. Wireless companies rose to the challenge. Providers offered more wireless data on their networks and mobile hotspots, waived data fees, expanded lifeline offerings, and more. As consumers placed unprecedented demands on network capacity, companies like DISH and others provided spectrum assets to help.⁶

Wireless companies nationwide also reinforced their roles as vital members of the community. They distributed meals to youth organizations and childcare providers, donated to initiatives for underserved small businesses, and partnered with organizations worldwide that support healthcare, education, economic recovery, and more.^{3, 5, 12}



Accelerating the 5G rollout

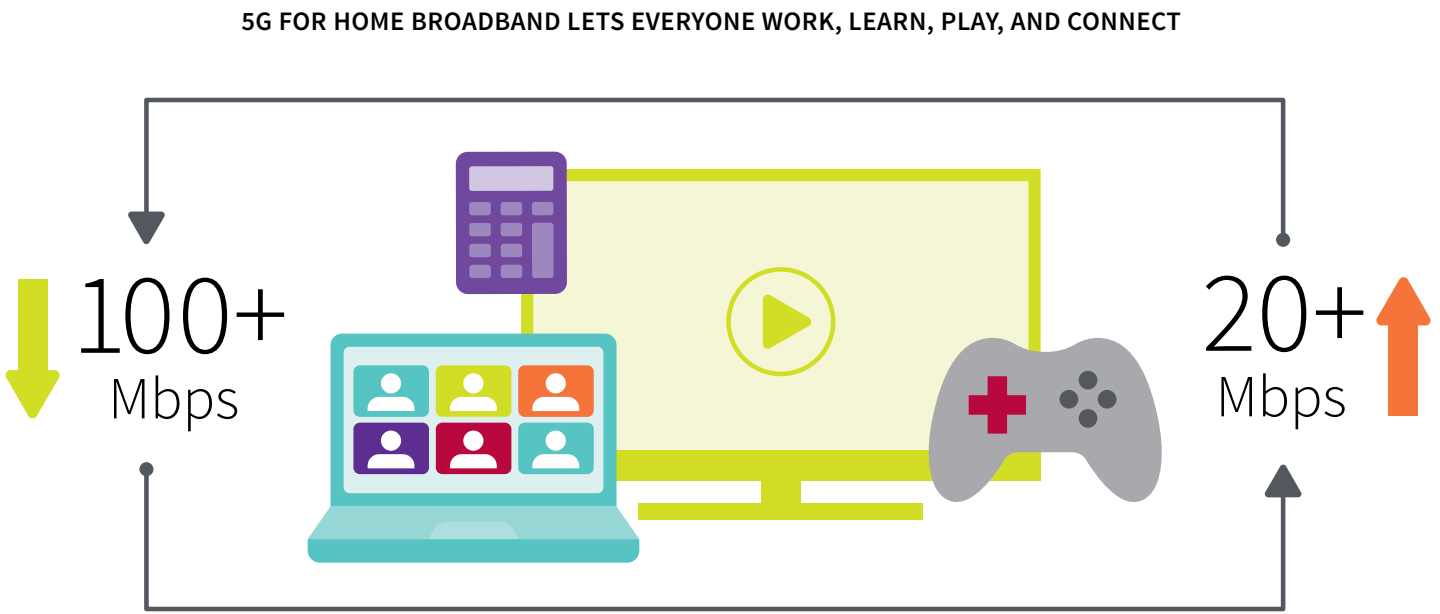
The pandemic brought entire families home—along with their computers, smartphones, and tablets—to work, learn, shop, and play.

5G to home broadband—also known as 5G fixed wireless—is one of the quickest and most cost-effective ways to provide high-speed internet that meets consumers’ needs. Despite a global slowdown on construction and investment during the pandemic, the wireless industry continued to take 5G broadband to new frontiers.

As millions of Americans were sheltered at home, wireless companies from large national operators to regional providers deployed 5G broadband to unserved and underserved communities nationwide. During a difficult time, 5G helped make life more connected, manageable, and convenient.

It allowed families to stay together: Parents worked from home, children learned remotely, and everyone could stream their favorite programs, music, and games at the same time. By 2025, 5G home broadband access will increase 16 times over.

5G also helped large and small businesses survive the pandemic, enabling them to serve customers through touchless services, ecommerce, videoconferencing, virtual collaboration tools, and more.






CONNECTING TODAY’S CLASSROOMS AND TOMORROW’S CAREERS

Before the pandemic, Tempele was one of millions of U.S. students between kindergarten and 12th grade who lacked adequate home internet access to complete schoolwork.³⁰


“The library got shut down, so I didn’t really have any way to do my school-work or attend my classes for a few weeks,” Tempele said. Wireless providers equipped Tempele and 2.4 million other students with free and discounted devices and data plans to stay connected during remote learning.

Helping bridge the digital divide


During the COVID-19 pandemic and beyond, students like Tempele depend on reliable, high-speed connectivity and the right resources for building skills and staying ahead of change. Here are examples of the many ways the wireless industry invests in the companies, tools, and people to get us there.




AT&T is pledging \$2 billion over the next three years to help close the digital divide through low-cost broadband offers, participation in the Emergency Broadband Benefit, and community investment and initiatives.¹¹




Ericsson has set a target to connect an additional 500 million people to the internet through mobile broadband by 2024.³¹




Intel is participating in the Million Girls Moonshot and partnering with HBCU North Carolina Central University on a new tech law and policy center.⁵



Qualcomm and its foundation support more than 130 STEM organizations worldwide. One example is Wireless Reach, which equips rural Kentucky fifth graders with tablets and data plans.²³



The Verizon Distance Learning Program discounted connectivity for more than 38 million students. Verizon aims to provide 10 million youths with digital skills training by 2030 through its Citizen Verizon activities.³



T-Mobile’s Project 10Million is a \$10.7 billion initiative to provide wireless hotspots, high-speed data, and access to laptops and tablets at cost—equivalent to \$500 annually per student household.¹²

Giving back to communities

Around the country, wireless companies and employees stepped up to volunteer their time and money in service of their communities. For example, Cellular One delivered devices, access points, and discounted data plans to local residents in rural Arizona and New Mexico, including the Navajo Nation.

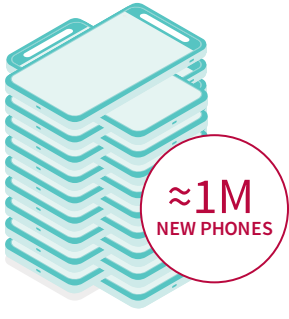
UScellular’s partnership with the Boys and Girls Clubs of America largely relies on volunteerism. In 2020, UScellular supported 53 clubs, contributing \$1.1 million and impacting 300,000 youths.³²

Similarly, industry volunteers facilitate T-Mobile’s After School STEM Academy for elementary and middle school students. The program hosted 71 sessions for 1,000 students in 2020.¹²

The wireless industry’s support of communities doesn’t stop with company programming. Wireless companies support their employees to engage with causes that matter to them most and are proud to give back to communities through donations and corporate partnerships.



Wireless employees volunteered more than 5.3 million hours in 2020—the equivalent of 605 years.



Wireless companies and foundations donated more than \$939 million—roughly equivalent to 939,000 new iPhone 13 Pros.

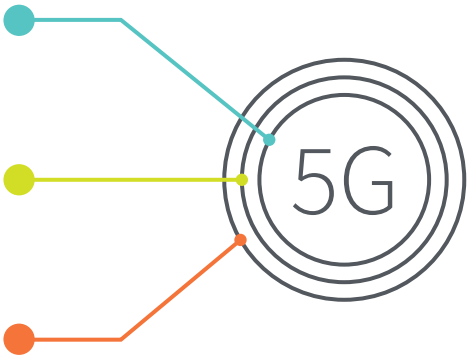
BOOSTING CONNECTIONS AND INNOVATION

Verizon is connecting students to augmented and virtual reality (AR/VR) experiences and advanced low-latency robotics.³

AT&T is delivering 5G and edge computing capabilities to the U.S. Department of Veterans Affairs Puget Sound Health Care System that could support AR/VR and robotics solutions for virtual pain management and real-time surgical assistance.⁴

Qualcomm’s Wireless Reach program brings advanced wireless technologies to more than 20 million people in underserved communities worldwide.²³

Robust wireless service creates connections, jobs, and a platform for innovation—all of which are key to the U.S.’s economic recovery. That includes tribal lands and rural communities. For instance, Cellular One helped more than 30,000 Tribal and rural community members stay connected with emergency mobile broadband data plans that offered affordable internet access.



Our Customers

OPTIMIZING GREATER ACCESS AND STRONGER PROTECTION

Through state-of-the-art products and services, the wireless industry is breaking down barriers to communication, enabling independent living, providing employment opportunities, and supporting civic engagement. At the same time, companies across America are safeguarding customers—especially children—against cyberthreats and bad actors.



T-Mobile supplies 37 states and the federal government with telecommunications relay services, helping people with speech disabilities and hearing loss communicate using text phones and operator services that translate voice conversations into text.¹²



AT&T also offers a range of products and services that remove barriers and improve accessibility for people with disabilities.³³



Through initiatives like AccessWireless.org and Verizon’s Accessibility Labs and annual Accessibility Bug Bash, the wireless industry shares information and fosters innovation toward more accessible wireless devices, services, and applications.³

Securing a growing ecosystem

Expert third-party assessments like the ITU’s Global Cybersecurity Index rate the U.S. as a top country for commitment to information and communications security.³⁴ The wireless industry makes this ecosystem even safer and more secure, especially through 5G’s rollout and as parents and children navigate the digital world.

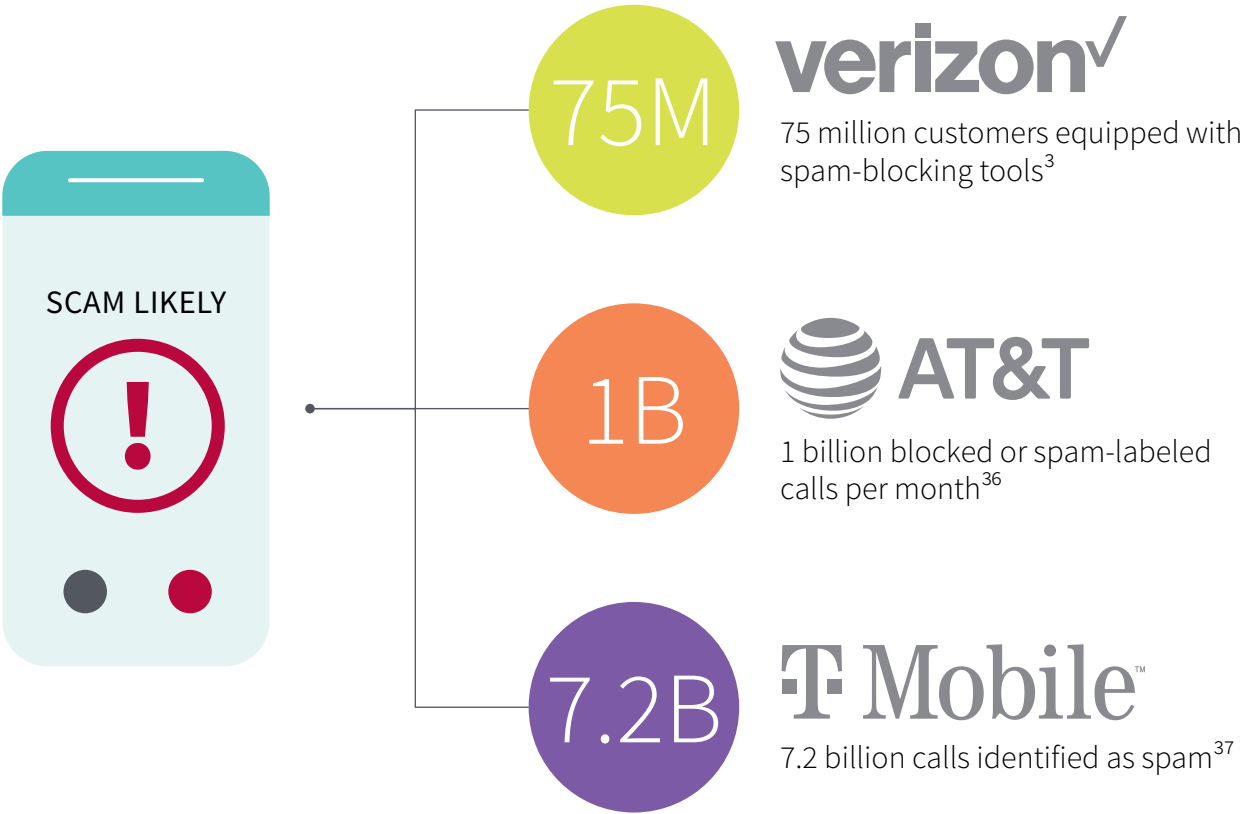
Verizon’s Parenting in a Digital World portal delivers expert-vetted advice on topics from screen time for toddlers to teen driver safety.³



In 2020, AT&T established an Online Safety Committee to provide oversight and guidance on the digital safety issues impacting businesses, customers, and society.³³

T-Mobile’s FamilyMode and Family Allowances put parents and account holders in control of messages, minutes, downloads, and internet access.³⁵

Companies throughout the wireless ecosystem are also protecting consumers of all ages against illegal and unwanted robocalls. This involves sharing information with law enforcement and government agencies, leveraging machine learning to detect new scams, and using digital certificates through the STIR/SHAKEN protocol to detect and stop calls with “spoofed” phone numbers before they reach consumers.



Resources

- 1 CTIA Analysis of Member Company Emissions Reduction Commitments
- 2 <https://www.ericsson.com/en/reports-and-papers/research-papers/the-future-carbon-footprint-of-the-ict-and-em-sectors>
- 3 https://www.verizon.com/about/sites/default/files/esg-report/2020/Verizon_2020_ESG_Report.pdf
- 4 <https://www.epa.gov/greenpower/green-power-partnership-national-top-100>
- 5 <http://csrreportbuilder.intel.com/pdfbuilder/pdfs/CSR-2020-21-Full-Report.pdf>
- 6 https://www.dish.com/dish-cares/pdfs/DISH-Cares-Annual-Report_2019.pdf
- 7 <https://news.uwgb.edu/phlash/releases/09/08/uw-green-bay-partners-with-cellcom-to-monitor-the-health-of-the-areas-freshwater-ecosystem/>
- 8 <https://www.verizon.com/about/news/emergency-resource-center>
- 9 <https://www.axios.com/wireless-next-challenge-is-climate-change-16441370-8651-41a0-b2a1-0126228caad4.html>
- 10 <https://www.cdp.net/en>
- 11 <https://about.att.com/ecms/dam/csr/2019/library/corporate-responsibility/2020-2021-summary.final.pdf>
- 12 https://www.t-mobile.com/content/dam/t-mobile/assets/pdf/T-Mobile_CSR20_10921.pdf
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- 14 <https://www.ericsson.com/49353d/assets/local/about-ericsson/sustainability-and-corporate-responsibility/documents/2020/2019-sustainability-and-corporate-responsibility-report.pdf>
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- 20 <https://www.verizon.com/about/news/supplier-spotlight-world-wide-technology>
- 21 <https://www.uscellular.com/get-to-know-us/investor-information/suppliers#commitment-diversity>
- 22 <http://csrreportbuilder.intel.com/pdfbuilder/pdfs/CSR-2020-21-Supply-Chain-Summary.pdf>
- 23 <https://www.qualcomm.com/media/documents/files/2020-qualcomm-corporate-responsibility-report.pdf>
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- 25 <https://www.uscellular.com/get-to-know-us/our-company/press-room/2019/uscellular-hosts-nationwide-interactive-unconscious-bias-tour-at-its-chicago-headquarters>
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- 27 <https://www.verizon.com/about/news/speed-june-29-2020>
- 28 <https://www.intel.com/content/www/us/en/diversity/diversity-at-intel.html>
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- 30 <https://www.politico.com/sponsored-content/2021/04/bridging-the-digital-divide?source=native&%3Bmedium=FC>
- 31 <https://www.ericsson.com/494193/assets/local/investors/documents/2020/sustainability-and-corporate-responsibility-report-2020-en.pdf>
- 32 <https://www.uscellular.com/get-to-know-us/community-outreach>
- 33 <https://about.att.com/csr/home/reporting/issue-brief/accessibility-affordability.html>
- 34 <https://www.itu.int/en/ITU-D/Cybersecurity/Pages/global-cybersecurity-index.aspx>
- 35 <https://www.t-mobile.com/privacy-center/education-and-resources/family-control>
- 36 <https://about.att.com/story/2021/robocalls.html>
- 37 <https://fightingrobocalls.ctia.org/>

ctiaTM

A horizontal row of seven teal-colored dots, each approximately the same size, positioned directly beneath the letters of the 'ctia' text.