

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Wireline Competition Bureau Seeks Comment
On Emergency Connectivity Fund For
Educational Connections And Devices To
Address The Homework Gap During The
Pandemic

WC Docket No. 21-93

COMMENTS OF QUALCOMM INCORPORATED

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Qualcomm is pleased to comment on this Public Notice as the FCC carries out the mandate of the American Rescue Plan Act of 2021 to establish and disburse the new Emergency Connectivity Fund to provide students critically important mobile broadband connectivity and connected devices during the COVID-19 emergency when tens of millions of K through 12th grade students across America have been forced to attempt to learn remotely.¹ Unfortunately, the millions of students who lack connectivity, a connected device, or both, have been completely shut out of remote education.

Accordingly, we strongly applaud the enactment of this legislation with funding for the new Emergency Connectivity Fund, and it is imperative that this funding be distributed to provide connectivity and connected devices to as many students as possible without one or both, as quickly as possible. It is equally crucial that the new fund be distributed as quickly as possible to provide connectivity and learning devices to as many teachers as possible without one or both.

¹ See FCC Public Notice, DA 21-317, *Wireline Competition Bureau Seeks Comment On Emergency Connectivity Fund For Educational Connections And Devices To Address The Homework Gap During The Pandemic*, WC Docket No. 21-93 (Mar. 16, 2021).

Correspondingly, we encourage the FCC to promptly implement rules allowing the Act's Emergency Connectivity Fund to be distributed as quickly and as efficiently as possible to enable those students who have been shut out of remote learning to gain access to it and to teachers too. The Commission also should accelerate the application and grant process under the Fund to allow school administrators to provide teachers and students who currently lack remote learning tools appropriate mobile broadband service and a mobile learning device, so each student lacking such broadband tools does not fall further behind their fully equipped classmates. The funding should support summer educational programs, which will surely be necessary for millions of kids who have been unable to participate in remote learning because they lack connectivity and/or a connected device, as well as remote education during the regular school year.

Qualcomm is not a newcomer to this issue. We have sponsored conferences on the educational benefits of the use of mobile technology, funded mobile learning pilot projects demonstrating such benefits, and made multiple FCC filings on this issue in E-Rate proceedings since 2007. Multiple studies and pilot programs, including the Commission's own 2011 Learning-On-The-Go ("LOGO") program, have demonstrated that equipping K through 12th grade students with connected devices and the necessary connectivity to effectively use them improves academic performance and better prepares them for success in college and beyond.²

Given the importance of promptly releasing this important emergency funding to school districts, the Commission should rely upon the existing E-Rate program to the greatest extent

² See, e.g., Qualcomm Comments (at 18-19) and Reply Comments (at 7-9) on A National Broadband Plan for Our Future Notice of Inquiry in GN Docket No.09-51 (filed June 8 and July 21, 2009); Qualcomm Reply Comments in WC Docket No. 13-184 (filed Nov. 8, 2013); see also Qualcomm Ex Parte Presentation (filed Jan. 14, 2014) in WC Docket No. 13-184, GN Docket No. 09-51 & CC Docket No. 02-6 (submitting two detailed reports that show the benefits of enabling 24/7 student use of mobile broadband connectivity to support learning).

possible to administer the Emergency Connectivity Fund. Soon thereafter, the FCC should modernize its E-Rate program to permanently permit E-Rate funds to be used for anywhere/anytime broadband connectivity and end-user connected devices, so low-income students will never again lack access to the same online tools their fellow classmates use at home, on the school bus, and everywhere else to complete homework assignments and continue learning outside of school hours.

INTRODUCTION and SUMMARY

Qualcomm strongly supports the FCC's administration of the Emergency Connectivity Fund via the existing E-Rate program and requests that the Commission accelerate the application and grant process to provide this funding to schools for broadband connectivity and learning devices as soon as possible. We know this new jolt of funding will improve the education of millions of low-income students who remain shut out of education today. There is no doubt about this because the final reports from the 2011 Learning-On-the-Go ("LOGO") pilot program the FCC set up to study the merits of providing students with 24/7 mobile connectivity and a learning device overwhelmingly confirmed that off-campus use of mobile broadband connectivity and connected devices substantially improves students' educational outcomes.

Students and community members from the nineteen schools and one library who received LOGO funding (out of nearly one hundred LOGO applicants) reported improved test scores, enhanced student engagement, improved attendance, and deeper connections among students and between students and teachers. Perhaps most importantly, participating schools noted that providing connectivity and a mobile device to low-income students left them believing they could succeed in school and in the future.

One school district found that providing wireless devices “engaged and motivated” students and increased their achievement. Another district found that providing wireless devices decreased student discipline incidents by more than 19%. Multiple school districts noted that using connected devices for tests saved teachers hours grading exams and quizzes.

As explained herein, mobile broadband networks are well positioned to provide services to students who lack access to remote learning tools. There is no question that the Commission needs to fund under the Emergency Connectivity Fund smartphones as well as laptops, tablets, and mobile hotspots. Like tablets, today’s smartphones are both “connected devices” and “eligible equipment” under the Act. Smartphones provide mobile hotspot functionality and contain modems and routers, all of which are expressly covered under the Act as “eligible equipment.” The statutory language is clear on this point and compels the FCC to include smartphones as “eligible equipment.” Moreover, it would not make sense to cover stand-alone mobile hotspots, but not mobile hotspots embedded in smartphones. A smartphone also is an end-user device capable of connecting to advanced telecommunications and information services, thereby qualifying it as a “connected device” as well. For all these reasons, the FCC must allow schools to receive funding from the Emergency Connectivity Fund for the purchase of smartphones in addition to laptops, tablets, and mobile hotspots.

At the same time, the FCC should not provide retroactive payments to schools under the Emergency Connectivity Fund because the whole point of this new Fund is to provide devices and broadband connectivity to students and teachers who still lack such devices and access today. Retroactive payments are not compelled by the Act, are not what Congress intended, and will not further the purpose of the legislation, which is to cure the Homework Gap during the COVID-19 emergency, not to clear up school balance sheets for purchases already made.

Congress knows how to require retroactivity, but the statute does not expressly require it nor does the legislative purpose comport with it. In fact, Congress declined to include an emergency connectivity fund in all prior COVID-related bills, including the CARES Act and the Consolidated Appropriations Act. This all supports the conclusion that, in the American Rescue Plan Act, Congress did not require the FCC to provide retroactive funding from the Emergency Connectivity Fund.

Likewise, the FCC should not exercise its discretion to award funds retroactively. The FCC should use the funding to close the Homework Gap – to provide devices and connectivity to K-12 students who lack one or both. Retroactive funding does not provide devices or connectivity to kids or teachers who lack them. Therefore, the funding should be awarded prospectively only. Emergency Connectivity Fund reimbursements should be effective as of the effective date of the new rules.

While the FCC has taken steps to modernize other universal service programs to support ubiquitous mobile broadband connectivity, the agency needs to update its E-Rate program to allow schools to fully leverage mobile broadband connectivity to support anywhere/anytime mobile broadband connectivity and learning devices.³ Making this update permanent will provide all students broadband access for homework and projects after school and on the weekends, when they are completing school assignments, absorbing online lectures, performing research, and collaborating with classmates. To do otherwise is to ignore the reality of the essential role of mobile technology in education and risks leaving the students who are the very target of E-Rate support on the unconnected side of the digital divide.

³ See Qualcomm Comments in WC Docket No. 21-31, Petitions For Emergency Relief To Allow The Use Of E-Rate Funds To Support Remote Learning During The Covid-19 Pandemic (filed Feb. 16, 2021).

Using E-Rate funds to enable universal student access to mobile broadband tools will enable new and effective ways of teaching and learning and ensure the long-term success of America's workforce. Mobile technology improvements driven by Qualcomm and the wireless industry writ large, including the widescale deployment of 4G and 5G mobile broadband networks, and ongoing improvements and cost reductions in mobile broadband-enabled smartphones, tablets, and laptops, have allowed these digital learning tools to replace or augment heavy paper textbooks, enabling more expansive, up-to-date content, the inclusion of educational videos, and effective online collaboration. There is no question that the proliferation of mobile learning tools is transforming our educational system for the better. All teachers and students, not just some, need these tools.

BACKGROUND

I. Qualcomm Continues To Advance Mobile Broadband Capabilities And Develop Cost-Effective Multi-Gigabit-Per-Second Chipsets, Fixed Wireless Access Solutions, And Always Connected Broadband Wireless Laptops, Tablets, And Smartphones

Qualcomm has driven the wireless industry's progression from 2G to 3G to 4G and now 5G. As a mobile technology company founded in San Diego in 1985, Qualcomm has a deep interest in ensuring all students in the U.S. have access to mobile learning tools. Through pilot programs we have funded to place mobile broadband-enabled learning devices into students' hands, we have seen outstanding results in student engagement and performance.

Qualcomm is the industry leading provider of 5G chipsets that operate in all spectrum bands the FCC has made available for flexible use services, providing multimode solutions that operate in low-band, mid-band, and high-band millimeter wave spectrum and enabling the best

possible broadband connectivity.⁴ Our company’s 5G mobile platforms offer a comprehensive modem-to-antenna system for 5G devices that provides ultra-high data speeds, superior coverage, and power efficiency in miniscule form factors.

A. Gigabit Connectivity In Student Laptops, Tablets, and Smartphones

In February of this year, Qualcomm announced the world’s first 10 gigabit-per-second 5G modem-RF system for use in smartphones, tablets, and laptops, and countless other wireless devices.⁵ This latest modem-RF system supports the highest 5G speeds currently available with fiber-like wireless performance and makes use of all available spectrum bands (licensed, unlicensed, and shared) for ultimate network flexibility, capacity, and coverage.

Qualcomm also provides mobile compute platforms, which laptop manufacturers incorporate and sell in the form of always-connected 5G, 4G LTE, and Wi-Fi 6-enabled laptops with long-lasting, multi-day battery life on a single charge.⁶ Qualcomm Snapdragon compute platforms for Windows 10 and for Chrome OS are available from multiple manufacturers, including Acer, HP, Lenovo, Samsung, and Asus. These always-on, always-connected laptops and tablets powered by Qualcomm technology allow students and educators to learn and teach from anywhere, not just in the limited radius of a hotspot, supporting education solutions for today and tomorrow.⁷ Most recently, Acer announced a low-cost, education-focused

⁴ See, e.g., Qualcomm 5G website available at <https://www.qualcomm.com/products/5g> (last accessed Feb. 16, 2021).

⁵ See Qualcomm Press Note, “[Qualcomm Announces World’s First 10 Gigabit 5G Modem-RF System](#),” (Feb. 9, 2021) (last accessed April 5, 2021).

⁶ See [Qualcomm Mobile Computing website](#) and see [Qualcomm 5G Snapdragon 8cx Gen 2 5G Compute Platform website](#) (last accessed April 5, 2021).

⁷ See Qualcomm OnQ Blog, “[Empowering students and educators to learn and teach from virtually anywhere, How Qualcomm Snapdragon compute platforms offer education solutions for today and tomorrow](#),” (Jan. 25, 2021) (last accessed April 5, 2021).

Chromebook powered by Qualcomm Snapdragon, the Acer Chromebook 511.⁸ With 4G LTE and 5G connectivity built right into the laptop, students can be online when there is no home internet connection, such as in remote areas lacking wired broadband service.

B. Fixed Wireless Access Systems To Economically Serve Underserved Areas

Qualcomm also has developed the world’s first fully integrated high-power millimeter wave antenna module for 5G-enabled extended range Fixed Wireless Access (“FWA”), the QTM527 millimeter wave antenna module, that provides fiber-equivalent performance at extended ranges, enabling service providers and 5G network equipment makers to deliver multi-gigabit speeds and ultra-low latency to an increasingly broader footprint.⁹ Scores of equipment manufacturers have chosen the Qualcomm Snapdragon X55 5G Modem-RF system for more than 80 FWA modem-routers. This FWA equipment receives and transmits 5G signals and connects with devices either because it is a hybrid modem-router located indoors, or, if located outdoors, the modem unit connects via ethernet to an indoor router. This equipment can provide 5G connectivity over 7 kilometers with speeds greater than 100 Megabits per second to small towns, homes, schools, businesses, libraries, and recreation centers, and serve low-income students in rural and underserved communities that are the target of the Emergency Connectivity Fund and the E-Rate program. This equipment should be covered by the Fund and by E-Rate because it can provide connectivity to educators and students who otherwise would lack it.

Earlier this year, Qualcomm announced our second generation FWA solution powered by Qualcomm’s Snapdragon X65 5G Modem-RF System and latest extended-range QTM547 millimeter wave antenna module, allowing mobile providers to offer fixed internet broadband

⁸ See [Acer Chromebook 511 on Acer website](#) (last accessed April 5, 2021).

⁹ See, e.g., Gautam Sheoran, [Qualcomm OnQ Blog - FWA breakthroughs show promise of 5G mmWave for extended ranges](#) (Sept. 17, 2020) (last accessed April 5, 2021).

services to homes and businesses using their 5G network infrastructure.¹⁰ FWA equipment deployments eliminate the large capital expenditures for wired network rollouts, coupled with removing the need to secure permits or send technicians out to each home for installation. This allows for smoother rollouts, quicker time to commercialization, and the delivery of 5G multi-gigabit speeds and low-latency connectivity to a much wider coverage footprint.

Recent third-party testing of Qualcomm’s first generation 5G NR millimeter wave FWA equipment by the Signals Research Group demonstrated downlink data speeds of more than 1.8 Gbps at 1.7 kilometers and 180 Mbps at 5.1 kilometers, which is more than sufficient for remote learning in rural and underserved locations.¹¹ The FWA customer premises equipment (“CPE”), which receives broadband signals from the service provider’s fixed access node and enables connectivity to student devices within the home, delivers Gigabit speeds with near line-of-sight and non-line-of-sight radio conditions on a commercial network, even when the CPE is situated well off-angle from the serving cell site. Also, millimeter wave FWA equipment supports uplink data speeds greater than 100 Mbps, exceeding what many fixed broadband service plans presently provide.

Thus, the FCC should ensure that the Emergency Connectivity Fund and the E-Rate program cover FWA equipment and connectivity to schools and low-income homes. To be clear,

¹⁰ See Qualcomm Press Note, “[Qualcomm Announces Second-Generation 5G Fixed Wireless Access Platform with 10 Gigabit 5G Connectivity for Homes and Businesses](#)” (Feb. 9, 2021) (*last accessed* April 5, 2021).

¹¹ See Signals Research Group, All Things 5G NR mmWave – An Update on 5G NR Millimeter Wave Network Performance and New Use Cases (Jan. 26, 2021) *available at* <https://signalsresearch.com/issue/all-things-5g-nr-mmwave/> (*last accessed* April 5, 2021).

In Australia, nbn, Ericsson, Qualcomm, and Casa Systems achieved a 1 Gbps 5G millimeter wave communications data rate at a distance of 7.3 kilometers. See nbn Press Release, “[nbn sets 5G Long-Range Transmission World Record](#)” (Jan. 13, 2021) (*last accessed* April 5, 2021).

funding should cover FWA services, including FWA CPE, for low-income students and a laptop, tablet, or smartphone. FWA CPE includes a modem and a router and is an integral part and enabler of broadband Internet access service.

II. Equipping Students With A Mobile Broadband Connected Device Improves Educational Outcomes

The outstanding results of providing students with mobile broadband devices is well documented by Qualcomm as well as other technology companies and educators in prior Commission E-Rate proceedings.¹² A decade ago, the Katy Independent School District in Texas distributed Android smartphones to 1,500 fifth graders in ten schools, and teachers and school administrators “witnessed surging levels of engagement and achievement among students who had access to the technology tools.” For example, test performance increased from the 70th to 90th percentile on math exams.¹³ Furthermore, the Piedmont City School System in Alabama became the first school system in the state to implement a one-to-one laptop initiative, called MPower Piedmont, which provided connected laptops for use inside and outside of school. Piedmont noted: “Our teachers regularly comment that the one-to-one aspect is important but ‘Internet access at home ... allows us to take instruction to a level that most districts never experience.’”¹⁴

¹² See, e.g., Cisco White Paper, High-Speed Broadband in Every Classroom: The Promise of a Modernized E-Rate Program (Sept. 2013) at 12-13 (“There wasn’t one teacher who didn’t see improvements in engagement and test scores” and reporting testimonials from teachers who said, “I’ve been teaching for 20 years, and I’ve never seen anything like this;” the “creativity these tools allowed was just amazing.” The mobile devices enabled differentiated learning by allowing students to use pencil and paper or podcasts.).

¹³ See *id.* at 13.

¹⁴ See Final EDU Report of Piedmont City School District in WC Docket No. 10-222 (Oct. 22, 2013).

For more than a decade, educators have requested that the FCC provide E-Rate support for mobile learning devices in order to truly realize the educational benefits of 24/7 wireless broadband access.¹⁵ Moreover, funding the cost of wireless broadband access without funding the acquisition of mobile learning devices itself may not properly equip low-income students. In addition, while there is no functional difference between a wired modem, which is eligible for E-Rate support, and a portable wireless hotspot, which may not be, the mobile hotspot – including when the functionality is embedded in a smartphone or tablet – has important benefits because it can be used by the student whenever and wherever they are, on the school bus, at home in the evenings and on the weekends. Mobile hotspots as well as portable learning devices, such as laptops, smartphones, and tablets, should be covered under the Fund and the E-Rate program.

As the Ohio E-Rate Consortium explained more than a decade ago:

Adding portable learning devices to the [E-Rate] Eligible Services List would not unduly impact other services. Adding these devices would not increase the broadband capacity schools need and thus would not increase the cost of services to the schools. In addition to having no financial impact on the E-Rate program, these devices would prove invaluable to students in completing their homework assignments or preparing extra-curricular school projects.¹⁶

Students in low-income homes can use these devices to gain access to textbooks, educational publications, and libraries of information at lower costs. There is no better use of Emergency Connectivity Funds or E-Rate funds than to support student laptops, tablets, and smartphones because it directly facilitates continued learning outside the classroom.

¹⁵ See, e.g., Comments of CloudED Mobility at 5; Comments of the Ohio E-Rate Consortium at 15-16 (both filed July 9, 2010 in response to the 2010 E-Rate NPRM in CC Docket No. 02-6 & GN Docket No. 09-51).

¹⁶ Comments of the Ohio E-Rate Consortium at 16 (filed July 9, 2010 in response to the 2010 E-Rate NPRM in CC Docket No. 02-6 & GN Docket No. 09-51).

The E-Rate program, which has traditionally focused on serving schools with wired broadband connections and installing Wi-Fi infrastructure in classrooms – and in many cases has successfully achieved that goal – needs to be broadened to cover mobile broadband connectivity provided by 5G mobile and FWA systems, and devices for low-income students. Countless studies show that doing so would have a tremendous positive impact on low-income students’ learning and overall academic performance. Students who cannot afford a mobile learning device with connectivity will benefit greatly from the funding of portable learning devices and broadband connectivity that allow them to learn anywhere and anytime, just like many of their classmates.

DISCUSSION

I. The FCC Should Promptly Issue Rules Allowing Emergency Connectivity Funds To Be Used For Mobile Broadband Access And Connected Devices

Qualcomm strongly supports using the Emergency Connectivity Fund to support remote learning during the COVID-19 emergency and requests the Commission immediately implement rules to ensure these funds are used for mobile broadband connectivity and devices.¹⁷ The FCC should use the existing E-Rate program to the greatest extent possible to ensure the quickest rollout of support of in-home connectivity and devices to students and their teachers who lack these critical tools.

Furthermore, as Qualcomm has explained in many filings in this agency’s prior E-Rate proceedings, the Commission should update the E-Rate program to support anywhere/anytime broadband connectivity and devices permanently, so low-income students will continue – after the COVID-19 emergency is over – to have access to the same online tools their fellow

¹⁷ See Public Notice at 5.

classmates use at home, on the school bus, and everywhere else to complete homework assignments, collaborate with classmates and teachers, and continue their learning outside of school hours.¹⁸ Multiple studies have demonstrated that providing students with a broadband connected mobile device improves academic performance, and it better prepares the student for success in college and when they enter the workforce.¹⁹

Funding for mobile broadband connectivity and devices is needed as soon as possible. A recently released teacher survey from the District of Columbia State Board of Education assessed their experience teaching during the COVID-19 pandemic in virtual settings and support in terms of broadband connectivity and learning devices.²⁰ Three-quarters of teachers surveyed indicated that their students have internet access that is too slow for virtual learning and over sixty percent noted that their students' learning devices were too slow.

A. Mobile Broadband Networks Are Well Positioned To Provide Services To Students Who Currently Lack Access To Remote Learning Tools

In many rural and underserved areas of the country, wireless connectivity is the most cost-effective means of providing broadband access. Since 2010, mobile network providers have

¹⁸ See, e.g., Qualcomm Comments in WC Docket No. 21-31, Petitions For Emergency Relief To Allow The Use Of E-Rate Funds To Support Remote Learning During The Covid-19 Pandemic (filed Feb. 16, 2021).

¹⁹ See Dean Brenner, Qualcomm OnQ Blog, "E-rate Funds Go Mobile" (July 11, 2011) available at <https://www.qualcomm.com/news/onq/2011/07/11/e-rate-funds-go-mobile> (last accessed Feb. 16, 2021) (seven Qualcomm-sponsored pilot projects during the 2010-2011 school year showed that readily available mobile broadband access and devices produce substantial improvements in educational performance and student engagement).

See also Qualcomm Ex Parte Presentation (filed Jan. 14, 2014) in WC Docket No. 13-184, GN Docket No. 09-51 & CC Docket No. 02-6 (submitting detailed reports showing the multiple educational benefits of enabling 24/7 student use of mobile broadband connectivity to support learning).

²⁰ See [D.C. State Board of Education Results from the 2021 D.C. All-Teacher Survey](#) (Mar. 17, 2021) (last accessed April 5, 2021).

spent billions and billions of dollars upgrading their networks and have blanketed the nation with 4G and 5G mobile broadband connectivity. Commercial mobile networks provide unparalleled, ubiquitous connectivity and unmatched economies of scale.

Mobile broadband service offerings, with bulk rate discounts geared toward schools and their students, are now common and are proliferating. Prices for mobile broadband data plans have continued to decrease.²¹ The Emergency Connectivity Fund should take advantage of this mobile broadband market reality, and school administrators should be given the flexibility to purchase the lowest cost commercial broadband solution to meet student learning needs.

Mobile wireless connectivity has proven particularly critical to remote learning over the past year, and it will remain a central part of the solution to the homework gap during the remainder of the emergency period²² (and beyond) by enabling students to access online educational resources and connect with teachers and other students in many settings as education increasingly occurs outside of the school and home.

B. The Commission’s Rules Should Fund Smartphones In Addition To Laptops, Tablets, And Stand-Alone Mobile Hotspots

The FCC’s rules for distributing Emergency Connectivity Funds to school districts should allow school administrators and educators to decide which devices and which connectivity provider to use to ensure their students have adequate access to mobile learning tools. In this regard, the FCC should allow funding for smartphones as well as mobile hotspots and tablets and laptops.²³ Smartphones, which can be used as a hot spot, unquestionably qualify

²¹ See, e.g., T-Mobile USA Comments in WC Docket No. 13-184 at 2-3 (filed Aug. 7, 2017) (noting that its mobile Internet service plans prices have dropped drastically).

²² See Public Notice at 2.

²³ The American Rescue Plan Act defines “eligible equipment” as Wi-Fi hotspots, modems, routers, devices that combine a modem and a router, and connected devices. Public Notice at 5.

as “eligible equipment” under the Act because they contain a router, a modem, and a Wi-Fi hotspot. Smartphones also are “connected devices” because they are end-user devices capable of connecting to advanced telecommunications and information services.

Also, today virtually all mobile phones and mobile-broadband enabled tablets provide a user interface and a mobile hotspot mode that can provide Wi-Fi access to laptops and other computing devices. Standalone mobile hotspots, on the other hand, do not provide a user interface, yet the FCC proposes to fund those via the Emergency Connectivity Fund. Any and all devices that provide a mobile hotspot mode – including mobile smartphones – should be covered under the Fund. Moreover, virtually all smartphones today incorporate a router and a modem – which are components of a Wi-Fi hotspot and are expressly covered as “eligible equipment” under the American Rescue Plan Act of 2021. The Commission should entrust educators with the decisions about what specific devices and which technology solutions will meet their students’ needs. In many cases and for many applications, a smartphone is just as effective a learning tool as a laptop or tablet.

For example, Qualcomm’s Wireless Reach program funded a pilot project in North Carolina, called Project K-Nect, showing significant benefits in improving math scores based on a smartphone-based program.²⁴ The students used their phones to communicate with classmates and with teachers outside of school hours, showing the benefits of 24/7 broadband access. Project K-Nect showed that always-on, always-connected mobile devices dramatically improve

The Public Notice seeks comment on whether additional specificity is required in the definition of eligible equipment, and proposes to exclude mobile phones (i.e., smartphones) from the definition of connected devices. *See id.* at 6. For all the reasons explained herein, Qualcomm strongly believes smartphones are “connected devices” and “eligible equipment” under the Fund.

²⁴ *See* Qualcomm OnQ Blog, [Why Mobile Will Transform Learning: The Classroom of the Future](#) (Oct 10, 2012) (*last accessed* April 5, 2021).

student success by providing unprecedented access to learning resources and the ability to collaborate with peers and teachers in and out of the classroom. Mobile connected devices allow each student to learn at her own pace and enables real-time assessment of how each student is performing, allowing teachers to focus their efforts where they are needed most.

Given the usefulness of a connected smartphone, tablet, or laptop, there is no reason for the Commission to undertake a complicated factual inquiry to create what surely would be artificial distinctions between these devices.²⁵ School districts should be permitted to seek reimbursement for the devices that best meet their students' and teachers' connectivity and educational needs. Indeed, it would be contrary to Congress' intent for the FCC to pre-judge the connectivity and educational needs of millions of students in place of educators' on-the-ground understanding of their own districts, and we do not believe that the FCC would want to do that.

C. The Emergency Connectivity Fund Should Be Used To Support Summer School Activities, But Retroactive Payments Should Not Be Permitted

As explained above, the FCC should allow school boards and school administrators wide latitude in deciding where to apply Emergency Connectivity Fund monies to provide mobile broadband connectivity to students and teachers who lack such connectivity when they are not in the school building. For example, schools should be able to support students who are attending class during the summer months.

However, the Commission should not allow retroactive reimbursement for purchases made prior to the effective date of the FCC's still-to-be-defined rules governing the

²⁵ Notwithstanding, the Commission should not allow the Fund to be used for desktop computers, which are priced comparably with laptops, tablets, and smartphones, but support zero mobility. *See* Public Notice at 5. Unlike smartphones, tablets, and laptops, desktop computers cannot be carried by the student between home and school and from class to class or be used on the long school bus ride to and from school.

administration of the Fund.²⁶ The law does not require the FCC to award retroactive funding. Congress twice considered – but declined to include – a provision allowing such reimbursements. And, the American Rescue Plan Act says nothing about retroactive reimbursements. *See Landgraf v. USI Film Prods.*, 511 U.S. 244, 257, 281 (1994) (federal statute must contain an “explicit command” authorizing retroactive effect). In the case of the Consolidated Appropriations Act, the House twice passed legislation establishing an emergency connectivity fund, but the provision was not included in the final bill that ultimately became law. In the case of the CARES Act, some House and Senate leaders advocated for an emergency connectivity fund, but the provision was not included in that law either. In other words, until passage of the American Rescue Plan, Congress considered and declined to establish an emergency connectivity fund.

Against that legislative history, there is no indication that Congress intended that the American Rescue Plan Act require retroactive funding for the periods of time Congress declined to provide funding, much less any explicit command that the FCC must award retroactive funding required by *Landgraf*. This all supports the conclusion that the Emergency Connectivity Fund in the American Rescue Plan Act was not intended to require the agency to provide retroactive funding.

Simply defining the COVID emergency period by referring to the starting and end date is not tantamount to requiring retroactive reimbursement in the face of the legislative history. Therefore, for all of these reasons, the FCC is not required by the statute to award retroactive reimbursements.

²⁶ See Public Notice at 10, 13.

Moreover, the FCC should not exercise its discretion to award retroactive reimbursements. The purpose of the law is to close the Homework Gap – to provide devices and connectivity to K-12 students who lack one, the other, or both. Retroactive reimbursement does not help to close the Homework Gap. It does not provide any devices or connectivity to anyone. We appreciate the enormous financial crisis that schools have endured. But the Emergency Connectivity Fund should be awarded and used prospectively only.


Finally, the FCC should rely on the existing E-Rate program to the greatest extent possible to ensure the quickest rollout of support of in-home connectivity and devices to students who lack such access. After we move beyond the current pandemic, the FCC needs to ensure E-Rate funds can be used permanently for mobile broadband access and student learning devices so students can remain educationally engaged outside of school like their classmates who are equipped with mobile broadband-enabled learning tools. Failure to authorize such E-Rate fund support permanently will continue to hinder low-income students' education and critical access to broadband services and mobile learning tools.

CONCLUSION

Qualcomm respectfully requests that the FCC issue rules to allow the Emergency Connectivity Fund to provide mobile broadband access service and devices – laptops, tablets, smartphones – to students on the wrong side of the digital divide. The FCC also should promptly promulgate rules to revise the E-Rate program permanently, so it supports full access to mobile broadband connectivity and places portable learning devices into the hands of teachers and low-income students to be used both wherever they are – in school, at home, in the park, and on the school bus. These updates to the E-Rate program are needed now to ensure America’s low-income students can keep pace with their classmates that have mobile broadband-enabled laptops, tablets, and smartphones with them wherever they go.

Respectfully submitted,

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