

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

| | | |
|--|---|----------------------|
| In the Matter of |) | |
| |) | |
| Modernizing the E-Rate Program for Schools and |) | WC Docket No. 13-184 |
| Libraries |) | |
| |) | |
| |) | |
| |) | |
| |) | |
| |) | |
| |) | |

**COMMENTS OF THE SCHOOLS, HEALTH & LIBRARIES BROADBAND (SHLB)
COALITION**

November 30, 2023

INTRODUCTION AND SUMMARY

The Schools, Health & Libraries Broadband (“SHLB”) Coalition¹ respectfully submits these comments to the proposed FY 2024 Eligible Services List (ESL).² We commend the Commission’s Declaratory Ruling (“Ruling”) clarifying that the provision of Wi-Fi, or other similar access point technologies, on school buses is eligible for E-Rate support.³ This clarification will create a significant opportunity for many of our nation’s students. The COVID-19 pandemic shed light on the disparities Americans still face when it comes to having access to reliable, affordable broadband at home. We saw firsthand that, while many students are equipped with school-issued devices to complete and submit assignments online, many are simply unable to do so because they lack a reliable broadband connection at home. The Ruling now provides those students an additional solution to secure a broadband connection during their commute – a seemingly small step with significant impact to ensure that no student is left behind.

As the Commission considers ways to structure school bus Wi-Fi program rules, SHLB suggests the following:

- Allow schools the flexibility to choose the technology that best meets their needs. While the Eligible Services List (ESL) can provide examples of the types of equipment and services that would be eligible for funding, E-Rate should ultimately support a tech-neutral approach that allows schools to consider a variety of equipment, services, and software solutions. The ESL should ensure that the program can accommodate changes or advances in vendor offerings and technology, as well as

¹ The SHLB Coalition is a broad-based public interest organization consisting of over 300 members who share the goal of promoting open, affordable, high-quality broadband for anchor institutions and their communities.

² *Wireline Competition Bureau Seeks Additional Comment on Adding Wi-Fi on School Buses to Proposed Eligible Services List for the E-Rate Program*, WC Docket 13-184, Public Notice, DA 23-1011 (Rel. Oct. 25, 2023) (*ESL Public Notice*).

³ *See Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Declaratory Ruling, FCC 23-84 (Oct. 25, 2023) (*Wi-Fi on School Buses Declaratory Ruling*).

a school's specific needs, including service from multiple providers, including private cellular networks.

- Make school bus Wi-Fi equipment and services eligible as Category One expenses, including equipment and services (such as antennas, cabling, software, licenses, subscriptions, installation costs and maintenance) required to make school bus broadband functional.
- Apply current filtering requirements under the Children's Internet Protection Act (CIPA) to school bus Wi-Fi. In doing so, we urge the Commission to allow E-Rate to fund the incremental costs associated with CIPA filtering for school bus Wi-Fi. We also encourage the Commission to re-state its current policy that student owned devices (i.e., tablets, laptops) are not subject to CIPA.
- Apply the 90% safe harbor presumption to govern ancillary ineligible uses of school bus Wi-Fi equipment and service.
- Extend E-Rate's current community use rules to allow broader access to school bus Wi-Fi beyond students and school staff. Community access for school bus Wi-Fi should be allowed for both on and off-campus locations.
- There should be no restriction or eligibility requirements related to bus ownership.
- There should be no specific use or usage requirements as a condition of eligibility.
- The existing exemptions for competitive bidding should apply to school bus Wi-Fi as well.
- There should be no annual limit on one-time or recurring equipment and services costs, and no cap on the amount per bus.

TABLE OF CONTENTS

I. THE COMMISSION SHOULD ALLOW E-RATE FUNDING FOR VARIOUS TYPES OF EQUIPMENT, SERVICE, SOFTWARE, AND TECHNOLOGIES THAT ENABLE SCHOOL BUS WI-FI AND ALLOW SCHOOLS FLEXIBILITY TO CHOOSE THE OPTIONS THAT BEST MEET THEIR NEEDS. 5

II. SCHOOL BUS WI-FI EQUIPMENT AND SERVICES SHOULD BE ELIGIBLE FOR E-RATE FUNDING AS CATEGORY ONE EXPENSES..... 7

III. CONSIDERATIONS TO ENSURE COMPLIANCE WITH EXISTING E-RATE PROGRAM RULES. 8

IV. THE COMMISSION SHOULD NOT RESTRICT E-RATE ELIGIBILITY BASED ON SCHOOL BUS OWNERSHIP OR USAGE REQUIREMENTS..... 11

V. BECAUSE ESTIMATED SCHOOL BUS WI-FI COSTS ARE WITHIN THE PROGRAM’S ANNUAL FUNDING CAP, THE COMMISSION SHOULD NOT PLACE AN ANNUAL LIMIT ON COSTS. 13

VI. CONCLUSION 14

I. THE COMMISSION SHOULD ALLOW E-RATE FUNDING FOR VARIOUS TYPES OF EQUIPMENT, SERVICE, SOFTWARE, AND TECHNOLOGIES THAT ENABLE SCHOOL BUS WI-FI AND ALLOW SCHOOLS FLEXIBILITY TO CHOOSE THE OPTIONS THAT BEST MEET THEIR NEEDS.

The Commission seeks comment about what equipment and services are necessary to enable school bus Wi-Fi or other similar access point technologies.⁴ Generally, to enable internet connectivity on a school bus, a school requires i) a connection from the bus to the network service and ii) propagation of Wi-Fi (or other similar technology) for riders on, in, and around the bus. There are various types of equipment and services a district might require to make this happen, such as a mobile broadband router, modem, antennas, cables (that connect to power and to the antennas) and batteries. Vendors might also offer variations of this equipment: some might offer a router with a *built-in* modem (or multiple modems) while others might separate the two.⁵ Wi-Fi enabling equipment also typically requires certain software or an annual license to enable the operating system to function. Internet subscriptions, installation and maintenance costs should also be eligible for E-Rate support if they are necessary for the service to be functional. We also note that other factors could ultimately affect a school district's purchase decision. For example, while a school might choose to "hard install" equipment to the bus, in some cases it may wish to purchase a portable kit so that equipment can be moved easily

⁴ *ESL Public Notice* at 1.

⁵ A Cradlepoint IBR900, for example, is a Wi-Fi router with a built-in Cat18 LTE modem. *See* <https://cradlepoint.com/product/endpoints/ibr900/>. The Pepwave BR1 Pro has a Wi-Fi 6 router with a built-in Cat20 LTE modem. *See* https://download.peplink.com/resources/pepwave_br1_pro_cat20_datasheet.pdf. Starlink commonly separates the two with the modem in the "Starlink" component and the router as a separate device. *See* <https://www.starlink.com/specifications>. Some devices may have multiple modems built-in, so as to connect to multiple carrier networks simultaneously. Some devices may have modems for different categories of LTE or may have modems for 5G or other network technologies.

to a different bus. Portability is also likely to be used more on buses that are leased. Schools must also purchase equipment and service capable of meeting their specific bandwidth or data needs⁶ or capable of accommodating advances in technology in their area.⁷ Additionally, a school might choose to operate its school bus network by partnering with a traditional a wireless carrier, in correlation with a private network,⁸ with TV whitespace, or other technology type.⁹

Accordingly, while certain equipment from traditional mobile providers is typically associated with enabling school bus Wi-Fi connectivity, we urge the Commission to ensure that E-Rate supports *various* types of equipment, service, software, and technology offerings that enable school bus Wi-Fi (including that which is functionally equivalent and similar to typical offerings).¹⁰ We further suggest that the ESL should include examples – rather than an exhaustive list of eligible equipment – while providing that schools retain flexibility to make the best connectivity choices for their students. Doing this will ensure that the program accommodates the equipment, service, and vendor offerings available in a community,¹¹ changes

⁶ A larger bus might require an unlimited data plan, for example.

⁷ Some devices will be built for Wi-Fi 5, while others will be built for Wi-Fi 6 or, in the near future, Wi-Fi 7.

⁸ For example, Fresno Unified School District currently runs a school bus Wi-Fi program using a single commercial carrier. It has also built its own private LTE network to connect students that lack access to the internet at home. Once it completes Phase II of its LTE project (by erecting 50 private LTE cell sites) it plans to also use that private LTE network to increase the capacity of the Wi-Fi service on buses (with no additional cost because it's a private cell network).

⁹ Additionally, vendors might offer fully managed services, whereby the service provider owns and operates the equipment.

¹⁰ Allowing for tech-neutral support is especially critical in areas where traditional cellular service is simply unavailable, such as farming communities and mountainous areas where the signal can't reach the valleys (which is where most of the roads are built).

¹¹ A vendor and/or specific equipment offerings may not be available in all states or all communities.

or advances in technology, and a specific district's needs. This will also ensure that the ESL remains tech-neutral and does not preclude a school's choice of technology and vendor.

Additionally, we note that a school bus or fleet of buses might require service from more than one provider. This is particularly the case when bus routes traverse across multiple communities and neighborhoods where signal strength for a particular carrier might be strong in one area but weak in another. To maintain uninterrupted connectivity during the entire commute, schools will need to purchase a router or similar device that operates multiple SIM cards for different carriers. This will ensure that even if one SIM loses the signal, the equipment can pick up the signal of the other one. We thus also ask that the Commission allow E-Rate funding for service from multiple providers as well as for equipment that accommodates dual service.

II. SCHOOL BUS WI-FI EQUIPMENT AND SERVICES SHOULD BE ELIGIBLE FOR E-RATE FUNDING AS CATEGORY ONE EXPENSES.

The Commission asks whether school bus Wi-Fi equipment and services should be eligible as a Category One or Two service (or some combination of these).¹² SHLB strongly recommends that both the internet service and related equipment be classified as Category One expenses. For example, to enable school bus Wi-Fi connectivity, a device (such as a router) both receives the LTE signal and subsequently converts it to Wi-Fi for the benefit of the end-user. Accordingly, equipment installed on the school bus is necessary to make the mobile broadband service functional and should thus be categorized as a Category One expense. Eligibility for funding under Category One should include *all* equipment and services that are required to make school bus broadband functional, such as the antennas, cabling that connects to the router and

¹² *ESL Public Notice* at 1-2.

modem, any licenses or other software, and subscriptions, installation and maintenance required to make the equipment operational. Additionally, we note that trying to separate some equipment and services for treatment under Category One and other expenses under Category Two is certain to lead to confusion for applicants and for USAC, and that any effort to separate Category One and Category Two expenses will not be able to keep up with changes in technologies in this rapidly changing environment. Furthermore, making all segments of Wi-Fi access on school buses eligible under Category One will not diminish a district's limited Category Two budget.

III. CONSIDERATIONS TO ENSURE COMPLIANCE WITH EXISTING E-RATE PROGRAM RULES.

The Commission asks for comment about how it can best ensure that school bus Wi-Fi eligibility remains consistent with E-Rate rules.¹³ There are various reasonable measures the Commission could take to ensure that Wi-Fi use on school buses remains consistent with current program rules and limitations, while also recognizing the unique nature of mobile internet connectivity. First, and from a local perspective, the district's own internet Acceptable Use Policy (AUP) applies to all district-provided equipment and network services regardless of the user's physical location. In addition, because a school bus could be considered an extension of the physical classroom, certain E-Rate program requirements that currently apply to the classroom could also extend to the bus, such as filtering pursuant to the Children's Internet Protection Act (CIPA). Similar to the Commission's guidance imposed on network equipment and services funded under the Emergency Connectivity Fund (ECF) Program, if a school purchases Wi-Fi equipment and related services through E-Rate to enable school bus internet

¹³ *Id.* at 2.

connectivity, it would qualify as network equipment and thus require CIPA compliance for use with school-issued devices.¹⁴ Here, we would again encourage the Commission to allow schools the flexibility to work with vendors to find CIPA-compliant solutions to meet their particular situation, including, for example, if they should i) have filtering software included in the router itself, ii) have filtering software within the network service from the service provider, or iii) extend the filtering capability already present on the *school or school district's* current network to the school bus by routing the bus traffic back to that network.¹⁵

Relatedly, we strongly urge the Commission to allow E-Rate to support the incremental costs associated with filtering school bus Wi-Fi services as an additional eligible Category One expense. While we recognize this is a departure from the Commission's current interpretation of the statutory language, we believe the statutory language does not prohibit use of E-Rate funds for filtering. Further, we submit it is better policy and is consistent with the legislative purpose for the E-Rate program to support Congressionally mandated costs such as CIPA filtering rather than to place those costs on the shoulders of anchor institutions that must comply with it.

Second, we note that school bus Wi-Fi service might be coupled with additional offerings that do not directly relate to the provision of broadband to an end-user. For example, vendor offerings might include GPS-location capability or security cameras/monitoring that would be considered ineligible for E-Rate support and subject to current cost-allocation rules. Because

¹⁴ ***Error! Main Document Only.*** *Establishing Emergency Connectivity Fund to Close the Homework Gap*, 36 FCC Rcd 8696. 8749, ¶ 111, fn 301 (2021)

¹⁵ Such technology is called "tunneling," whereby school bus data traffic would be directed (tunneled) to the school district network. The resulting Wi-Fi connection would be an extension of the school district network (with all of the same credentials, policies, etc.). We additionally note that a school might also connect to a regional or state-owned network, which could be filtered. If a school is able to route school bus traffic back to its own, regional or state-owned, network that is currently filtered, it should not be required to purchase a separate filtering service from a mobile carrier.

such uses would likely be minimal in relation to the provision of broadband, and conducting cost allocations to exclude such costs would be challenging for an applicant, we suggest that the Commission apply its 90% safe harbor presumption— meaning that ineligible uses of school bus Wi-Fi equipment and service will be presumed ancillary if at least 90% of the requested Wi-Fi equipment and service is being used for eligible purposes.¹⁶

Third, the Commission asks whether it should restrict school bus Wi-Fi access to students and school staff. SHLB believes it is generally reasonable to prioritize access to school bus Wi-Fi for student and school staff needs. Rather than specifying any particular method for *how* a school should limit access, however, we suggest that it is preferable for the Commission to provide guidance that schools should make reasonable efforts to ensure appropriate use by authorized users. For example, the 90% safe harbor provision could address use by others. Further, we also suggest that such limitation on access could be reasonable during certain hours or activities (such as while the school bus is actively transporting students), and that there can be cases where parents or other community members would also reasonably require access to the Internet via school bus Wi-Fi.¹⁷ Granting access beyond students and staff in certain circumstances would be in the public’s best interest *and* comply with current Commission precedent established in the E-Rate program allowing for community use. The Commission could restrict applicants from requesting funding for more services than are necessary for the

¹⁶ See *Schools and Libraries Universal Support Mechanism, Federal-State Joint Board on Universal Service*, and *Changes to the Board of Directors of the National Exchange Carrier Association, Inc.*, CC Docket Nos. 02-6, 96-45, 97-21, Report and Order and Further Notice of Proposed Rulemaking, FCC 23-56, ¶ 26 (rel. July 21, 2023).

¹⁷ For example, a school in West Virginia parked a school bus near the football field, so that individuals could use its Wi-Fi connection to fill out FAFSA paperwork.

educational purposes required to serve their current student population.¹⁸ We do urge the Commission, however, to stipulate that community use of school bus Wi-Fi can be accessed both at on-campus and off-campus locations. For example, because a school bus is mobile, a school might want to provide community access at a location other than on school grounds to accommodate community events and other needs.

Fourth, we submit that the Commission should extend the existing competitive bidding exemption for commercially available high-speed internet access to school bus Wi-Fi. When the total costs for bus Wi-Fi equipment and service, including installation, basic maintenance, taxes and fees, will be at or below a pre-discount amount of \$3,600.00 per bus, then applicants should be permitted to use the commercially available broadband internet access service competitive bidding exemption (see 47 C.F.R. §54.504(e) (also referred to as “CABIO”)).

IV. THE COMMISSION SHOULD NOT RESTRICT E-RATE ELIGIBILITY BASED ON SCHOOL BUS OWNERSHIP OR USAGE REQUIREMENTS.

As the Commission considers application of school bus Wi-Fi program, we caution it to refrain from setting unduly restrictive eligibility restrictions related to bus ownership and usage requirements. First, the Commission should not restrict E-Rate funding eligibility only to those schools or districts that *own* their school buses. In the United States, school-related transportation represents the largest form of mass transportation,¹⁹ but not all school buses are owned by the school or school district. In addition to district-owned buses, schools might contract with a third-party bus owner for student transportation,²⁰ or operate county or state-

¹⁸ See *Schools and Libraries Universal Service Support Mechanism*, Sixth Report and Order, 25 FCC Rcd 18762, 18775-76, ¶ 24 (2010).

¹⁹ National School Transportation Association, <https://yellowbuses.org/>

²⁰ We understand that 30% to 40% of national student transportation services are owned by private contractors. *Id.*

owned buses. The decision to privatize school transportation might result from considerations related to geography (both on a regional level and even local level, whereby cities and urban areas might be more heavily contracted), budget and staffing resources, and a school's particular need. Denying E-Rate eligibility to schools that contract for school transportation would thus leave behind millions of students and work against the Commission's goal to close the Homework Gap. Such a decision would also be incongruent with current E-Rate program practices, as the Commission does not limit program support to only those schools and libraries that own their own buildings and facilities. We would thus urge the Commission to allow E-Rate to fund school bus Wi-Fi for all schools and districts, regardless of whether they own their own buses or contract with a third party for school transportation services. If a school contracts with a third-party bus owner, the school should still remain responsible for ensuring compliance with E-Rate program rules.

Second, the Commission should not impose school bus Wi-Fi use or usage requirements as a condition of receiving E-Rate support. For example, the Commission should not require schools to disable equipment and services when buses are parked or during the summer months. Requiring a school to disable bus Wi-Fi at times when the bus is not in active use would create an onerous burden while (at the same time) the school might still be obligated to pay the provider for service. Additionally, disabling this equipment – especially for long periods of time – could affect its ability to operate properly; when equipment is turned off it does not receive regular software patches or safety updates that are pushed out via the network. Further, the Commission should not set minimum bus Wi-Fi broadband usage requirements as a condition for eligibility, such as setting minimum threshold amounts related to how much data is used or how often students connect to the network. Multiple factors could affect Internet usage on a school bus like

fluctuations in ridership, if the bus is out of service for any period of time, weather problems, and whether regular bus routes are rearranged to accommodate school and student needs. Even if such variables were static or removed from the equation, schools would still not always be able to adequately predict how much or how often students and school staff will use bus Wi-Fi service. Accordingly, the Commission should refrain from establishing minimum usage measurements as a condition of receiving program support.

V. BECAUSE ESTIMATED SCHOOL BUS WI-FI COSTS ARE WITHIN THE PROGRAM'S ANNUAL FUNDING CAP, THE COMMISSION SHOULD NOT PLACE AN ANNUAL LIMIT ON COSTS.

The Commission asks for data concerning the estimated costs of providing Wi-Fi for school buses and its impact on the E-Rate program.²¹ Using the Commission's estimates provided in the Ruling, the cost of school bus Wi-Fi connectivity would likely remain well below the current program funding cap, even if *all* school buses are outfitted with Wi-Fi connectivity. The School Bus Fleet December 2021 Fact Book reports that there are 506,520 school buses in the United States.²² The Commission estimated that the one-time cost of equipment plus installation and activation is \$1,384 for a single bus, with recurring costs for 12 months of service estimated at \$456. Using these estimates and assuming an equipment life cycle of five years, the total cost over five years would total \$3,664²³ and the cost for one year for a single bus would be \$733. Assuming *all* 506,520 school buses participate in the school bus Wi-Fi program,

²¹ *ESL Public Notice* at 2.

²² School Bus Fleet, Fact Book December 2021, Pupil Transportation Statistics, *School Transportation: Nationwide Data*, 14-15, available at <https://mydigitalpublication.com/publication/?m=65919&i=731615&p=18&ver=html5>.

²³ The five-year life cycle cost for a single bus = \$1384 + 5 * 456 = \$3,664.

the total annualized cost would be \$371,279,160.²⁴ If the average E-Rate discount is 80%, then the annual impact of the school bus Wi-Fi on the program would be \$297,023,328, which is well within the program's current annual funding cap.²⁵

We caution the Commission against imposing any per-bus caps or placing annual limits on one-time and recurring equipment and service costs. Capping the amount per bus would negatively impact those that require satellite or multi-homed services due to rurality. Given that there are various factors that affect a school's purchase decision for bus Wi-Fi, such as vendor equipment and service offerings available in a particular area or at a certain point in time and school (or local and state) requirements and specific bussing needs, initial installation and recurring costs could fluctuate across districts. Also, any initial estimated cost considerations might not remain static, as school needs could vary over time and circumstances.

VI. CONCLUSION

SHLB appreciates the opportunity to provide insight into the future operation of school bus Wi-Fi funding opportunities within E-Rate. We encourage the Commission and the Universal Service Administrative Company to continue to work with E-Rate stakeholders to ensure that rules provide school districts with considerable local authority to decide which is the best technology and service option to implement mobile broadband bus connectivity and account for school needs. We encourage the Commission to adopt a tech-neutral stance that allows

²⁴ Total annual cost = 506,520 * \$733 = 371,279,160. Cost analysis provided by Mike Jamerson, E-Rate Consultant. Further details can be made available upon request.

²⁵ The estimated total demand for E-Rate Funding Year 2023 is \$2.944 billion under the funding cap of \$4.768 billion. See *Wireline Competition Bureau Directs USAC to Fully Fund Eligible Category One and Category Two E-Rate Requests*, CC Docket No. 02-6, Public Notice, DA 23-425 (WCB, May 19, 2023).

flexible solutions so that the program remains streamlined and not overly burdensome on applicants.

Respectfully submitted,



Kristen Corra, Policy Counsel
Schools, Health & Libraries Broadband Coalition
1250 Connecticut Ave. NW, Suite 700, Washington, DC 20036
571-306-3757
kcorra@shlb.org

November 30, 2023