



July 11, 2024

SUBMITTED ELECTRONICALLY VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: Ex Parte Filing

Addressing the Homework Gap Through the E-Rate Program, WC Docket No. 21-31

Dear Madam Secretary:

Pursuant to Federal Communications Commission's *ex parte* rules, I hereby submit the following summary of four meetings conducted by representatives and members of the Schools, Health & Libraries Broadband (SHLB) Coalition and the Open Technology Institute at New America to discuss the Commission's draft Report and Order (Draft Order) and Further Notice of Proposed Rulemaking (FNPRM) regarding E-Rate support for Wi-Fi hotspots for remote learning¹. The following individuals participated in the meetings:

July 9, 2024 Meeting with Elizabeth Cuttner, Legal Advisor, Wireline and Enforcement to Chairwoman Jessica Rosenworcel:

- John Windhausen, Jr., SHLB Coalition;
- Kristen Corra, SHLB Coalition;
- Michael Calabrese, The Open Technology Institute at New America (OTI);
- Michael Flood, Alpine Frog, LLC;
- Robert Bocher, American Library Association (ALA);
- Julia Legg, Co-chair of SHLB E-rate Policy Group; E-rate Central; and
- Philip Neufeld, Fresno Unified School District (Fresno).

July 9, 2024 Meeting with Hayley Steffen, Legal Advisor for Wireline and Space to FCC Commissioner Anna Gomez:

- Mary Phillips, Commissioner Anna Gomez
- Kamila Ramos, Commissioner Anna Gomez
- John Windhausen, Jr., SHLB Coalition;
- Kristen Corra, SHLB Coalition;

¹ *Addressing the Homework Gap Through the E-Rate Program, WC Docket No. 21-31, Report and Order and Further Notice of Proposed Rulemaking, FCC-CIRC2407-02 (rel. June 27, 2024) (Draft Order).*

- Michael Calabrese, OTI;
- Michael Flood, Alpine Frog, LLC;
- Megan Janicki, ALA;
- Julia Legg, Co-chair of SHLB E-rate Policy Group; E-rate Central; and
- Philip Neufeld, Fresno.

July 10, 2024 Meeting with Members of the Wireline Competition Bureau (WCB):

- Allison Baker, Johnnay Schrieber, Molly M. O’Conor, Kate Dumouchel, and Bryan Boyle of the WCB;
- John Windhausen, Jr., SHLB Coalition;
- Kristen Corra, SHLB Coalition;
- Michael Flood, Alpine Frog, LLC;
- Bob Bocher, ALA;
- Julia Legg, Co-chair of SHLB E-rate Policy Group; E-rate Central; and
- Philip Neufeld, Fresno.

July 11, 2024 Meeting with Justin Faulb, Chief of Staff and Legal Advisor for Wireline and National Security to FCC Commissioner Geoffrey Starks:

- John Windhausen, Jr., SHLB Coalition;
- Kristen Corra, SHLB Coalition;
- Michael Calabrese, OTI;
- Michael Flood, Alpine Frog, LLC;
- Megan Janicki, ALA; and
- Julia Legg, Co-chair of SHLB E-rate Policy Group; E-rate Central.

Participants made the following points during the meetings:

Support for the Commission’s Hotspot Initiative

SHLB and OTI reiterated their continued support for the Commission’s hotspot initiative. We have long recognized the detriment to student and library patron education when they fall into the Homework Gap because of poor or nonexistent internet access at home. In January 2021, SHLB, ALA, OTI and others filed a Petition for Expedited Declaratory Ruling asking the Commission to allow E-rate funds to support remote learning during the Covid-19 Pandemic, believing that the Commission could dramatically improve circumstances for underserved students.² Subsequently, SHLB and OTI published a set of twelve case studies highlighting schools and libraries that championed their own broadband networks to connect students and library patrons at home³ along with an accompanying economic report authored by Dr. Raul

² SHLB, OTI, et al., Petition for Expedited Declaratory Ruling and Waivers Allowing the Use of E-Rate Funds for Remote Learning During the COVID-19 Pandemic, *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184 (Jan. 26, 2021).

³ See Matthew Marcus and Michael Calabrese, *The “To and Through” Opportunity: Case Studies of Schools and Community Networks Able to Close the Homework Gap for Good* (Aug.

Katz which found that anchor-enabled networks can often be more cost-effective than traditional hot spot connectivity models (Katz Report).⁴

SHLB and OTI's Recommendations for Supporting Anchor-Enabled Networks

While we commend the Commission for taking steps to incorporate hotspot connectivity into E-rate, we noted that the Draft Order doesn't accurately account for SHLB and OTI's considerations for budgeting anchor-enabled networks that utilize alternative services and devices outside of those associated with traditional mobile carrier hotspots. Nor does it account for the suggestions we recommended to support these alternative (yet functionally equivalent) technologies while financially safeguarding limited E-rate program funds. Specifically, the Draft Order does not cite the Katz Report or the case studies. Further, the Draft Order does not refer to SHLB and OTI's May 16 letter offering that an applicant's request for anchor-enabled network funding should be no more than the prevailing market cost for analogous commercial wireless hotspot services over a five year period, which an applicant would learn through the competitive bidding process.⁵ The current Draft Order would only provide subsidy for traditional, commercially available hotspots and services, which could skew the market and prevent schools and libraries from considering lower-priced and higher quality options.

We asked the Commission to generally reconsider allowing support for alternative services and devices (including anchor-enabled networks) outside of those offered by traditional mobile carriers. As we stated in our comments and prior communications with the Commission, alternative services and devices offer functionally equivalent wireless options that could provide

2022), available at https://assets.noviams.com/novi-file-uploads/shlbc/PDFs_and_Documents/SHLB_Research_and_Publications/OTI_Case_Studies.pdf

⁴ See Dr. Raul Katz, *The "To and Through" Opportunity: An Economic Analysis of Options to Extend Affordable Broadband to Students and Households via Anchor Institutions* at 3 (August 2022), available at https://assets.noviams.com/novi-file-uploads/shlbc/PDFs_and_Documents/SHLB_Research_and_Publications/Raul_Katz_Economic_Study1.pdf

⁵ Letter from Kristen Corra, Policy Counsel, SHLB, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 21-31 (filed May 16, 2024). We are specifically concerned about the language in Paragraph 25 of the Draft Order stating, "[a]t this time, we do not possess the information necessary to make a broader determination, **nor did any commenters sufficiently analyze the feasibility of broadening the scope of eligibility. In particular, we do not have sufficient data to rely on to establish funding caps on the equipment or service costs associated with other solutions or to establish an overall budget like the one adopted for Wi-Fi hotspots herein. For example, while some stakeholders urge the Commission to permit E-Rate support for applicant-enabled off-campus networks, and provide some analysis for the potential cost efficiency of such solutions, they also acknowledge that these alternatives that would require much higher up-front deployment costs and rely on reaching a large number of students, school staff, and library patrons.**" (emphasis added)

better service, especially in many rural areas and low-income urban neighborhoods where traditional mobile carrier signals are nonexistent or are not strong enough to support remote learning inside the home.⁶ Given that the Commission has proposed a specific budgeting mechanism in the Draft Order for the hotspot initiative, it can simply allow funding for these alternative technologies within an applicant's proposed budget. If the Commission is unwilling to allow support at this time, we ask, at a minimum, that it include this item in the FNPRM to develop the record further. We also ask that it include questions asking how the hotspot initiative can be made most effective in low-income areas. For example, if mobile networks in these areas are not sufficient to provide adequate speeds and capacity to the students, school staff, and library patrons who are using hotspots, what other solutions might be available to ensure that these users have adequate service?

Suggestions For the Commission's Proposed Budget Mechanism

While we support the three-year budget approach in general, we expressed concerns with the proposed framework of the hotspot lending program mechanism as contemplated in the Draft Order. First, we anticipate that the pre-discount funding cap amounts that can be requested for services and hotspot equipment are too low, and suggested that the Commission raise these amounts to more accurately reflect current market pricing.

While the Draft Order contemplates a pre-discount \$15 monthly recurring service limit - based on the median cost of monthly services purchased in the Emergency Connectivity Fund (ECF) program - we are concerned that this price was driven by special pricing negotiated for large purchases between certain ECF applicants (such as the largest urban school districts) and a couple of specific service providers, or by states or groups of states on behalf of their school districts. If monthly recurring service costs are capped at \$15, this could create a host of unanticipated situations, including: discouraging smaller schools and libraries from participating because they lack the bulk purchasing power to negotiate better pricing and the budget to pay for any amount above what is reimbursable; discouraging service providers from participating, as they might not be able to offer service at that cost (especially in light of the usage monitoring requirements set forth in the Draft Order and waiver of early termination fees); disincentivizing service providers from offering robust service plans at that price (especially as the Draft Order does not require minimum service standards, which could apply to speeds, uptime, usage limits,

⁶ See generally Comments of the Schools, Health & Libraries Broadband Coalition and Open Technology Institute at New America, *Addressing the Homework Gap Through the E-Rate Program*, WC Docket No. 21-31, FCC 23-91 (Jan. 17, 2024); see also Letter from Kristen Corra, SHLB Coalition, to Marlene H. Dortch, FCC, WC Docket No. 21-31, FCC 23-91 (March 27, 2024) (describing the experience of East Moline School District 37 and the Boulder Valley School District); Letter from Kristen Corra, SHLB Coalition, to Marlene H. Dortch, FCC, *Addressing the Homework Gap Through the E-Rate Program*, WC Docket No. 21-31 (Nov. 3, 2023) (describing mobile signal testing and the experience of the Fresno Unified School District).

throttling, or other factors); and disincentivizing service providers from supporting SPI billing.⁷ Also, if there are only one or two service providers offering service in an area at a much higher price, applicants will be sorely disadvantaged. Based on SHLB member feedback, recurring service rates available to many applicants in ECF were, and are still today, as high as \$40 per month. Setting the capped price on the median rate of \$15 from the ECF program for future pricing will risk disenfranchising those applicants who are unable to reach that median price.

In relation to the proposed pre-discount \$90 per hotspot cap, we believe that this amount contemplates funding only certain categories of devices, which might not provide a capable internet connection in all areas or other connectivity features. Higher priced hotspots often support higher category LTE services, multiple frequency bands, carrier aggregation, longer battery life, internal processing, or improved antennas. The proposed capped amount could ultimately steer schools and libraries to lower-quality devices when better options might be available.

Second, we are cognizant of the Commission's effort to create a hotspot initiative within the fiscal guardrails of the E-rate program. As such, if the Commission finds it infeasible to increase the pre-discount funding cap amounts for services and hotspot equipment, we alternatively recommended that while it can use these \$15/\$90 caps to determine an applicant's total 3-year budget (as it has done in the Draft Order) it does not need to use these caps to determine *how* an applicant can use its budget. Specifically, the Commission could allow an applicant to rely only on its total 3-year reimbursement budget when purchasing hotspot devices and lines of service. This would model how applicants currently utilize their Category Two budgets.

Third, we suggested that schools and libraries should have more flexibility to determine their specific funding request amounts in any given year during the three-year budget cycle, and recommended that the Commission remove the provision in the Draft Order preventing applicants from requesting more than 45% of their three-year budget in any year.⁸ We believe that this requirement adds unnecessary complexity as each applicant will have to track that particular percentage each year. Applicants also lack control over pricing bids, which could make it easier to reach – and exceed – this 45% threshold. Additionally, this doesn't accurately

⁷ For example, for a service provider to utilize SPI billing, it would need to split the bill for service over \$15 in multiple ways: first, a portion of the \$15 cap would be billed to the FCC; second, a portion of the \$15 cap would be billed to the applicant; and third, any portion of the rate *in excess of the \$15 cap* would be billed to the applicant. If reimbursements are delayed (sometimes by a year in the ECF program) or there are unexpected denials for reasons beyond the service provider's control, utilizing SPI puts more risk on the service provider compared to utilizing BEAR. Under BEAR, the applicant is more incentivized to respond to FCC questions and to resolve compliance questions as they have paid for the service and are seeking direct program reimbursement.

⁸ Draft Order, Par. 40.

accommodate the various “readiness” levels of each school and library participating in this initiative. Some participants might have equipment to leverage at the start while others might have to purchase more equipment and service, or ramp up their programs more gradually. Removing this qualifier would better meet individual applicant needs.

Items Requiring Clarification

The Draft Order states, "CIPA also requires monitoring the online activities of minors and providing education about appropriate online behavior, including warnings against cyberbullying."⁹ As cited in footnote 336, this is from the 2011 CIPA Order which implements language in the "Protecting Children in the 21st Century Act" (PL 110-385, Section 215). The language in this sentence, taken directly from the Act, *only* requires compliance by schools, not libraries. We ask that the Commission clarify our understanding and state in the Draft Order that this only applies to schools.¹⁰

We believe that the Draft Order contains a typographical error in Paragraph 36. The current language states, "20 hotspots per 100 students and 5.5 hotspots per library square foot, adjusted by discount rate." We believe that the Commission’s intent here is to instead state, "5.5 hotspots per 1,000 library square feet." We additionally note that footnote 137 has the same error.

The Draft Order provides two examples of a school budget, which indicate that these are “pre-discount” budgets.¹¹ The formula shown in Paragraph 37 to calculate an applicant’s three-year budget (and in footnote 140), however, already includes the applicant’s discount percentage, presumably to determine a budget based on an indicator of need. Can the Commission clarify if an applicant’s discount percentage is applied in calculating the three-year budget formula *and* again when calculating its actual maximum E-rate reimbursable amount?¹² If this is the case, we ask the Commission to provide clarifying language in the Order.

⁹ Draft Order, Par. 94

¹⁰ This item was not discussed during the meetings, but we include it now for consideration.

¹¹ Draft Order, Par. 37 stating, “[f]or example, an independent school with 500 students and a 90% discount rate would have a three-year, pre-discount budget of \$56,700, while a school district with 500 students and a 40% discount rate would have pre-discount budget of \$25,200.” This is similarly reflected in the library budget examples in Par. 38 and fn. 142.

¹² If this is the case, we are concerned that this could have a potential compounding effect, whereby a “wealthier” applicant will get both a lower budget based on a lower perceived need and they will be expected to pay a larger applicant share of that budgeted cost.

Eligible Service and Equipment

The Draft Order precludes E-rate support for end-user devices (like laptops and tablets) with embedded 4G LTE or 5G capability.¹³ We ask that the Commission reconsider this decision. While we understand that the Commission does not want E-rate to pay for an end-user computing device, *devices with embedded modems* utilize the same functionality as a traditional Wi-Fi hotspot, service-only to these devices can still be competitively bid, and an applicant can turn off service to any particular device or transfer service from one device to another dynamically. Furthermore, multiple applicants purchased devices with embedded 4G/5G modems during ECF, rather than traditional hotspots. If the Draft Order does not allow E-rate funding to (at least) support *service* to these types of devices, those applicants will be required to purchase additional hotspot devices when they already have equivalent functionality today. This would be more expensive for the applicant, the E-Rate program, and require the ongoing support and management of duplicative devices and associated accessories – instead of one device per user, this approach requires two devices per user. We also noted that this preclusion might ultimately discourage manufacturers from continuing to produce 4G/5G embedded devices for fear of decreased demand due to the Draft Order’s eligibility requirements. Our recommendation is to allow the same *service*, under the same pricing and usage compliance rules, whether to a separate hotspot device, or to a 4G/5G modem embedded in an applicant owned computing device loaned to an eligible user (i.e. service-only to an existing Chromebook, tablet, or laptop with 4G/5G capability).

The Draft Order states that “[a]pplicants may request Wi-Fi hotspots and service together or service only, but Wi-Fi hotspots without an associated service line will not be eligible for funding.”¹⁴ The associated paragraph appears to refer to a more general prohibition on purchasing hotspot devices “for future use or to be stored in case of emergency” or breakage, which we acknowledge as a concern, but ask the Commission to clarify its intent. If the Commission intends only to apply this prohibition on purchasing hotspots for future use, we suggested that it could revise the language in footnote 154 to state: “Applicants may request Wi-Fi hotspots and service together, service only, or Wi-Fi hotspots only, but Wi-Fi hotspots not put immediately into service will not be eligible for funding.” We ask for this revised language because there are likely schools or libraries that already have service (funded by alternative support mechanisms) but need additional support to fund hotspot devices. For example, the New York Public Library completed a successful pilot using CBRS, with antennas mounted on local branch libraries in low-income areas. The libraries lend hotspot devices to low-income patrons. NYPL officials reported that they would expand this hotspot program if the hotspot devices were lower cost or subsidized. If the Commission does not intend to fund Wi-Fi hotspots *only*, we ask it to reconsider this decision or, at a minimum, include this item in the FNPRM to develop the record further.

¹³ Draft Order, Par. 25.

¹⁴ Draft Order, Par. 42, fn. 154.

We asked the Commission to clarify if eligible equipment and service must be purchased from the same vendor.¹⁵ If this is the Commission’s intent, we ask it to reconsider or, at a minimum, include this item in the FNPRM to develop the record further. We noted that applicants, such as the Fresno Unified School District, might find it prudent to purchase hotspot devices from one vendor and services from a different vendor, especially if they already maintain service or equipment funded via alternative sources.

We noted that the Draft Order isn’t always consistent with whether only “mobile” wireless services are eligible for E-rate funding.¹⁶ We continue to encourage the use of "wireless" service instead of limiting the program to “mobile”, as the term “wireless” better represents actual use cases. For example, ECF applicants used equipment that was "portable" since it could be transferred from patron to patron or moved from one residence to the next, but the equipment was plugged in and stationary while in use. As such, "wireless" service better encompasses existing cellular service and ongoing market innovations to deliver "wireless" internet service to consumers. Mr. Neufeld showcased two types of hotspot devices – one that reflected a traditional hotspot and one that reflected a more robust, functionally equivalent device with antennas (a Cradlepoint Device). Pictures of each device are included below. Both devices are “portable” (whereby a user can transport it from one place to another) but the Cradlepoint Device can be plugged in and stationary while in use and can connect to alternative services like the Citizens Band Radio Service (CBRS).

¹⁵ Paragraph 34 in the Draft Order allows applicants to select multiple service offerings in instances where a single service provider will not be able to cover the entire coverage area. Our question here asks whether an applicant must purchase a hotspot and an associated line of service from the same service provider.

¹⁶ For example, Paragraph 25 of the Draft Order states, “we limit eligibility to commercially available wireless Internet services and the Wi-Fi hotspots needed to deliver such services to an individual user” while Paragraph 28 states, “Here, the Commission solely makes the off-premises use of mobile wireless services eligible at this time.”



The Draft Order limits Wi-Fi hotspot capability “to devices that: (1) are portable; (2) are a single device (i.e., not a set of linked devices); and (3) do not have ethernet ports either upstream (WAN-type ports) or downstream (LAN-type ports).”¹⁷ We note that hotspot devices with ethernet ports are not meant to replace a wireless signal, but could be used for other means, such as use for diagnostics or firmware updates. We suggest that the Commission remove the reference to downstream ports and revise this language to state, “to devices that: (1) are portable; (2) are a single device (i.e., not a set of linked devices); and (3) do not have ethernet ports upstream (WAN-type ports).” If the Commission is unable to consider this revision, we ask that, at a minimum, it include this item in the FNPRM to develop the record further.

Additional Considerations¹⁸

We ask the Commission to consider conducting a survey of participating schools and libraries after the first year of the program to get their feedback and suggestions to strengthen the program going forward.

School applicants might be concerned that the 90-day non-usage requirement will result in disconnection of service at the end of the summer, just when school is starting back up again

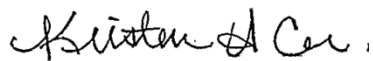
¹⁷ Draft Order, Par. 23.

¹⁸ These items were not discussed during the meetings, but we include them now for consideration.

and students need connectivity. We ask the Commission to consider a “grace period” for August and September to avoid this problem.

We very much appreciate the time Commission staff have taken to listen to our concerns and issues. We hope you have found our input useful and we, along with the school and library communities, look forward to implementation of this critically important program.

Sincerely,



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