CATEGORY 2 PUBLIC NOTICE – WC DOCKET NO. 13-184

Response Prepared By:

AdvanEdge Solutions Inc. / Intelafunds

Date: October 23, 2017

Erate CRN: 16061996

360 Martha Drive

Canonsburg, PA 15317

412-668-0785

TABLE OF CONTENTS

CATEGORY 2 PUBLIC NOTICE – WC DOCKET NO. 13-184

Contact Information:

Steve Mandarino	Dave Miller
stevemandarino@advanedgesolutions.com	davemiller@advanedgesolutions.com
412-668-0785 / 412-303-4841 (cell)	412-668-0785 / 724-747-4358 (cell)

Company Background:

AdvanEdge Solutions Inc. (AES) / Intelafunds was founded by two educational technologists to provide multiple viable strategy and project solution paths for technology-driven educational entities to address a wide scope of challenges, mandates and problems being faced today. The founders have an accumulated 60+ years of practical and administrative experience in the network, telecommunications and server technology arenas within the educational, public and private sectors ranging from small to enterprise levels. Areas of expertise include cabling infrastructure/plant design (fiber and copper), network routing/switching infrastructure design/support, WAN design, centralization of services models, technology budgets and project migration paths (in regards to implementation and budgeting), data center design/support, data warehousing, data design, systems/process design, voice services/infrastructures, Internet access management/design, network security, wireless networking, server environments and desktop/office/end-user devices.

AES resources have been engaged and leveraging the E-rate program since the start of the program and has reaped the benefits of this important funding program to ensure its schools receive the much needed budgetary help.

AES resources have successfully designed, implemented and coordinated hundreds of strategic technology solutions for schools and educational entities of all makes and sizes. This includes providing a turn-key E-rate support/filing service delivery that addresses the program's mandates/audit needs and schools' project requirements. As such, AES acts as a representative/liaison for the schools' E-rate relevant engagements to ensure that their interests are expressed, concerns are identified and needs are addressed.

Opening Statement:

As an E-Rate strategy and support resource for our numerous clients spanning across several states we welcome the opportunity to provide the FCC with specific in-site to our schools' numerous challenges regarding the E-Rate Program. In addition to identifying these challenges experienced by our schools we are also leveraging this opportunity to pinpoint specific issues we as power EPC Users and Program liaisons navigate through on a day-to-day basis. The goal is to provide in-site to numerous issues in hopes of potentially establishing resolves that will streamline various aspects for the schools, vendors, filers, Reviewers and other program support resources.

It should be noted that the items listed below have a significant impact for our schools across the board and, in consultation with other E-Rate Resources and schools we see and are made aware of the same shared challenges. A list of our schools (*see Appendix A*) with whom we have active E-Rate LOAs (Letter of Agency) with has been included with this FCC comment submittal. This list encompasses over 180 school buildings equating to support of over 67,000 students.

Comments:

In order to provide structure to our submittal we have categorized our comments into specific groupings…"Budget", "EPC Issues/Challenges" "Protocol/Procedures", and "Service Eligibility". Please continue below to review each category and its' corresponding numbered list of bulleted comments. Additionally, we have also included some supporting documents where noted. Our goal was to provide clean bulleted items for documentation of issues and considerations for changes to further strengthen the contributions and leveraging of this critical educational funding assistance Program. Groupings and corresponding listed items are as follows:

A. Budget

1.) **Support for implementation by "district/BEN" of C2 budgets (for entities consisting of multiple schools).** Therefore, the calculated C2 budgets for multi-school organizations/districts, the accumulated total budget value of all of students for those BENs/districts should be available for leveraging at whatever school(s) that needs the funding. Example: ABC School District has 5 schools, each with 200 students the C2 available cap would be 1000 total students at the designated per-student dollar value of which any of the 5 schools could use as needed…or, potentially could be dedicated to just 1 or 2 schools with the most need.

   It should also be noted and structured that if implementing the model of flex-budget identified above for multi-school entities ("BEN"s) that all wording and reference throughout the system and corresponding websites refer to "BEN-wide" as opposed to "District-wide" which would restrict the same opportunity to be afforded for non-"District" classified sites.

2.) **Increase the minimum C2 budget.** The minimum site-based C2 budget should be $25,000.00…*minimum.* The current budget value of $9,412.80 over a 5-year period is extremely inadequate which places extreme technology/budget hardship on those sites that qualify. These schools can't even address base-level network access/functionality for their sites at this rate. Thus the affected students experience a level of digital divide that puts them at a disadvantage. Not sure where this original value came from but there had to have been a major calculation/assessment error somewhere.

3.) **Increase per student C2 allocation.** The per-student funding value of $153.47 throughout a 5-year period is also woefully inadequate. This equates to $30.69 per year per student to address cabling infrastructure, firewall needs, routing/switching needs, access points, wireless management/controllers (needed to ensure maximal functionality/availability of wireless system), installations of eligible components and maintenance/subscriptions for eligible items. Although you cannot go back to the previous format of having an un-capped C2 model you can (and should) re-visit the per-student calculator dollar amount to be at least $250.00/student. Based on our experiences with hundreds of school technology projects (large and small) this will significantly ensure that required project scopes will be more readily achieved and thus provide a higher level of utilization of all functionality/services for all stakeholders.

A. Budget (Cont'd):

> User device density has increased tremendously over the last several years and will likely continue to increase over the next several as well. Today, short-cuts/reductions are made due to larger portions of project costs needing to be absorbed by the schools. Correspondingly, many of these needs are not followed-through with which has a negative impact on the project. This added burden of larger projects costs in conjunction with elimination of voice services support is adding stress to school technology budgets. In support of the C2 budget challenges we listed above we are attaching an example of one of our schools project/E-rate budget worksheet. This document represents the defined project for the school, including specific equipment/services details and pricing, identified C2 cap budget projection and (unfortunately) the project's non-E-rate relevant budget requirement due to limited C2 capacity. Note that on the spreadsheet all areas highlighted in pink or purple and/or having red text are C2 cap related deficiencies that the school must address out-of-pocket. Summary: cell G58 shows the out-of-pocket costs to address project needs…and note that this is a high poverty (80% funding) site. Also note that the reflective cost in this document is only for equipment and does not include the corresponding installation (due to C2 cap issues) which further impacts stress on the schools limited resources. (*See Appendix B*)

4.) **C2 cap maximum.** Consideration may need to be explored to impose a "maximum" C2 cap number (or, perhaps a per-year maximum cap). With the potential increases in the per-student dollar value as identified/requested above and in conjunction with the potential of imposing a district/BEN-wide accumulated student C2 budget to be used as needed/where needed (see Item #1 in this section) the large entities will have more project/budget flexibility. There could be a need to reduce the potential for excessive budget and/or filing period opportunities for these large participants thus impacting funding restrictions/availability against smaller sites of which encompass a majority of the E-rate educational stakeholders. Although we're not sure if program data supports such action we wanted to call attention to this potential impact.

5.) **Support for adding Firewall to C1 eligibility.** With today's extensive data security challenges a firewall device/service is a must. This required item could be a cost-prohibitive (in regards to C2 cap budgets for a given entity) and/or absorb a major portion of the available C2 cap funding budget for said sites. With the recommendation/need for higher Internet Access bandwidth services for all schools additional funding opportunity to address these needs

----

A. Budget (Cont'd):

must be considered. Since this device actually connects directly to the Internet Access service for a site perhaps it is time to roll this previously categorized C2 item into a C1 eligible equipment/service opportunity. It would immediately provide for mov2 C2 cap flexibility for all sites, safeguard previous and new E-rate acquired investments and bridge the gap for the ever-growing need for Internet Access services.

6.) **C2 Budget Tools.** Stating the obvious and a known issue…there <u>MUST</u> be a better comprehensive budget tool made available for the users. We understand that many of the issues were related to the divide between 2015 processes and those of 2016 & 2017. Moving forward, the new data tool should only incorporate the data for this next window/generation of the E-rate Program (upon the conclusion of the current model). Leave the old tool in place for an audit issues/maintenance access as needed. A revised comprehensive tool should incorporate displaying at minimum the following fields per year:

- Available C2 budget
- Amount requested
- Amount disbursed
- Embed links to relevant Form 471

B. Epic Issues/Challenges

1) **Form 471.** Functional challenge exists whereas when you are in a school's EPC portal account and select "FCC Forms", then select "FCC Form 471" and then choose a funding year you can only see the "Original" filed form 471. There is nowhere that the final (as funded/committed) version of the 471 is available for review/verification. There should be an opportunity to choose the current version of the form. If the form has not been committed/funded at that time then a splash message of "Final/updated version of this application is not available as of this time" should be displayed. Any display of a link to choose the current version should also display the date of last revision. This would be helpful because a user can immediately be aware if a particular Form 500 or any other action impacting an application has taken place within that posted "current" version. *If by some chance there is an area buried somewhere within EPC that has the updated version then that display option should be moved to this area to streamline review/validation processes and provide a solid format. EPC has numerous challenges where the end-user must navigate through multiple screens and into sections (that don't make sense to the end-users" in order to acquire information that should be a one-click action.*

2) **Terminology.** For standardization, clarity and communication purposes the use of the word "BEN" should be addresses. "BEN" stands for "*Billed* Entity Number". This terminology is used incorrectly throughout EPC, PIA Review narratives, etc. for school sites ("Entities") that are part of a larger group/district which are under the management of a single "BEN". Seems to be a simple, small item but have encountered several problems explaining to Reviewers and vendors the difference which is difficult when the program itself is using the incorrect terminology.

3) **Contracts.** Designated EPC administrator(s) for specific schools/districts should be able to delete any uploaded contract document as long as said document (based on system assigned contract number) is not leveraged within any awarded or active 471 applications. This cleans up the contracts area and streamlines reviews. If upon request to remove a previously uploaded contract document it is confirmed that the document in question is actively being leveraged for a 471 application (either awarded or in the review process) then an informative splash message should be displayed noting the affected 471 app number.

B. EPC Issues/Challenges (Cont'd):

4) **Screen Organization.** It would be a huge functional benefit if within EPC you could sort on various   screens so that data could be displayed in a desired format. This would be helpful in addressing various budget reviews, PIA Reviews and sporadic data reviews. Example: On My Landing page - My Clients you cannot sort on BEN Name…only on BEN. Sorted results should extend throughout all page displays (i.e.: if you sort on the BEN Name for the first screen then said sort   should extend to a subsequent screens as you toggle through those too).

5) **Printing.** A simple "Print Screen" option button within all EPC display screens would be very helpful and further streamline processes. This should not be that big of an issue but the benefits would be very much appreciated by multiple stakeholder groups.

6) **Landing Page**. Every screen display in EPC should have a default setup in design that permits one-click re-direct to "My Landing Page".

C. **Protocols/Procedures:**

1.) **Equipment Transfers**. In conjunction with the item noted as "**Budget:** – Item 1.)" the transfer of equipment requirements should be modified to allow transfer of any E-rate acquired equipment from any school site to any other district/BEN site within multi-school entities whereas a single district or BEN is the controlling entity for a group of entities (school). Only restrictions should be that a designated area within EPC should be created to allow for the documentation of the equipment transfer and that any such transfers would be limited to schools only (no administration sites).

2.) **RAL Implementation.** There is no confirmation/details report/display of submitted RALs. It is done online directly then is lost to the submitter once sent. There should be minimally an e-mail sent to the submitter stating the relevant application number, specific request details and time/date posted. Relying on screen shots to be saved on the establishing PC is inadequate, cumbersome and not a good audit solution for long-term support.

3.) **PIA Review Concerns.** The Program needs to re-visit its protocols in regards to the actual action items executed by the PIA Review Team. Problem is, when a particular challenge is identified and pushed to the school (Example: C2 budget overage) and subsequent time/effort is invested by the school to address said challenge and respond only to have another challenge identified afterwards (Example: partial ineligibility of an item) that then needs addressed. Upon addressing the second item a different C2 cap total is creating whereas some of the originally submitted resolve for the first identified challenge no longer exists so that again needs re-visited (otherwise, available C2 cap budget will be unleveraged). The action steps for review should be set (with no exceptions) as follows:

Step 1.) Execute all RAL requests first as submitted by school

Step 2.) Review database for any relevant Form 500s filed against 471/school site

Step 3.) After completion of Steps 1 & 2 _THEN_ execute the C2 cap verification processes. These processes should incorporate ALL associated C2 budget cap filing years and be detailed in the accompanying Excel spreadsheet attached to the PIA Inquiry.

C. **Protocols/Procedures (Cont'd):**

Step 4.) After executing the above three steps move forward with validation/confirmation of contract support for final listed items as noted in the updated FRNs.

By executing the above in the order listed you will significantly reduce the amount of back-logging work that currently exists when the process is executed out of sequence. We directly experienced situations whereas PIA Reviews were completed, awarded and then the originally requested RALs were executed *afterwards.* Needless to say the reverse-engineering aspect of budgets, projects, etc. presented significant stress to the school and all parties involved. To see an example (*see Appendix C, column BR*) of this note the data report attachment included with this submittal for Funding Year 2016 for BEN 125536 (Crawford Area SD). Also note that the final dollar values noted here do not match those that the Reviewer was viewing upon review of the district's YR 2017-18 C2 applications which caused significant stress/delay in addressing needs for those review processes. Data reflected in the Data Tool must be current and correct otherwise it has no value and adds to the problems experienced by all parties.

4.) **PIA Validation Concerns.** It should also be identified and mandated to PIA Reviewers that upon running their validation processes (reviews for specific equipment/service items identified within an FRN line item) and receiving an item of note (Example: "Provide vendor documentation supporting FRN #xyz for $999.99") they must read the narratives embedded in the FRN. These narrative define how the bids, contract pricing and FRNs were structured. Time is devoted to make these narratives as detailed as possible to eliminate unnecessary inquiries but they are being bypassed due to the Review matrix tool that does not note them. By requiring the narratives to be read a substantial amount of questioning can be eliminated thus reducing stress on all parties and streamlining the funding award processes.

5.) **BEAR Process**. Need quicker turn-around time when requesting PINs to file BEARs; currently most are mailed which takes an average lead time of 3 weeks. A few customer service reps will email them out which takes less than a week. Request all reps email them out to requestor. Minimal impact on support resources with a significant benefit to be realized by stakeholders!!

C. Protocols/Procedures (Cont'd):

Requesting that an email is sent to the contact person for all online BEARs notifying them the BEAR has been approved/denied by the program; currently have to check the legacy system to see if 'completed' or "pending USAC" which does not tell you if its approved or denied and why. Also have to wait for the paper BNL to be received to notify the school.

6.) **BNL Process.** Email or upload BNL notifications directly to EPC site which could then trigger notification to the filer of its status; all are currently mailed out to us regardless of the funding year.

7.) **FDCL Process.** There is a need to change/improve upon the FCDL process currently in place. There is a substantial lack of detail being provided which requires the end user to have to search numerous other areas of data to try to piece together what truly is in place (assuming those areas are updated with current data and are accurate). Notification should minimally include (like the original FCDL letters did) details by 471 app number, FRN number, Pre-discount amounts requested, Funding percentage, Committed amounts, Implementation & Invoicing deadlines, SPIN, Vendor Name, and 471 application name.

8.) **Equipment Standards**. We suggest the program consider allowing schools to request specific manufacturers/models whereas they have already established a system-wide standard. Requiring schools to request compatible equivalents actually places the schools in a position to utilize hybrid networks. Hybrid networks generally create un-do burdens in regards to management and support, resulting in increased costs and user-downtime. For example, incompatibility with items such as Wireless Access Points and controllers is a genuine concern. Schools utilizing equipment standards benefit from streamlining their IT infrastructure, simplify decision making and minimize purchasing and maintenance costs.

D. Service Eligibility:

Comment: In our extensive involvement with many schools and districts ranging from small educational organizations with under 100 student to large districts with thousands of students it is amazing the similarities that exist in their service needs and budget challenges. Based on these noted factors the following considerations for service eligibility would provide much-needed budgetary support that would enable the schools to leverage the E-rate Program more aggressively with immediate reward/benefits to the schools and corresponding student populations:

1.) **Voice Services.** Bring back the eligibility of voice services!!! The re-introduction of voice services would not have to include voice infrastructure (dedicated end-user cabling, PBXs, etc.) but should provide for the hand-off of voice services to the buildings (VoIP-based) including emergency POTS lines as needed. Said services should be allowed to use existing and new network cabling infrastructure. By omitting the build-out of custom voice building-based infrastructure the opportunities of wasting funding on those projects when a facility closes would be eliminated. Does not have to be the whole voice pie…but the funding for the service aspect would be greatly appreciated.

2.) **Building Security**. With all of the security challenges facing our schools today it would very helpful if considerations can be given to include building security as part of an eligible service. Not so much as the systems (as such systems can be very expensive and thus absorb a larger portion of the available funding pot) but perhaps allow for the cabling needs for cameras, doors, etc. and potentially include the end-devices such as cameras, mechanisms and Wi-Fi capable security broadcasting/monitoring (i.e. Wireless Access Points with embedded security capabilities).

3.) **Discontinue Cellular Services.** Not in support of cell phone services becoming eligible again as this aspect of service was the most challenging to manage, over-subscribed and abused service. Those funds can be better leveraged for other needs/opportunities.

4.) **URL Filtering.** A need exists and it would be very beneficial if the Program provided some funding assistance toward the mandated URL filtering. Perhaps an annual stipend of X amount of dollars per student above and beyond the C2 budget cap…with a defined minimal amount for small schools with the same needs but less overall students. This need dove-tails with building security.

Final Statement:

Today schools are facing multiple challenges in regards to local, state and federal budgets, physical and technical security, aging cabling infrastructure (including copper voice lines) to support QOS, increasing demands on WI-FI density and delivery, shrinking life-cycle of WI-FI components, increasing capacity for "on demand" content streaming, and technology in general moving at an advanced pace in order to prepare students for diverse educational opportunities.

Education is being transformed by technology whereas everyday access to the internet and computing devices is a utility no different than turning on the lights. Dollar investments for IT infrastructure is more critical than ever in order to support new learning methodologies which embrace student creativity and removes barriers such as traditional classroom design. The E-rate program is a key component of the very complex funding mechanisms for schools. The subsidies provided is of great value to all schools. The 2015 iteration of E-rate eligibilities was a step in the right direction but falls short in realistic expectations for schools in order to properly stage and build a cost-effective, sustainable IT infrastructure.

We suggest the program consider implementing a new funding window as early as possible, perhaps 2019. This would help eliminate huge challenges such as with the C2 budget tool. Schools are struggling to understand exactly what C2 budget balances are available. Revising and aligning the public E-rate webpage with the EPC C2 budget tool certainly requires attention. Completion of that revision is mission-critical so-as all schools would benefit from knowing they were back to full 100% pre-discount availabilities while removing future budget inconsistencies.

Thank you for the opportunity to bring the comments and recommendations listed above to the attention of the FCC for potential considerations. Please feel free to contact us directly if there are follow-up questions or discussions that may be of benefit.