ERATE 470 REQUEST AND REQUEST FOR PROPOSAL (RFP)
FOR: NETWORK TRANSPORT VIA FIBER OPTIC ERATE
CASEY COUNTY SCHOOLS

OBJECTIVE:
Casey County School District is seeking proposals for the upcoming round of E-Rate (2019-2020). Casey County School District is soliciting proposals for providing network transport service via fiber from each of four district sites the district’s hub site.

TIMELINE:
- January 3, 2019 Release of this RFP to vendors and public notice (http://www.casey.kyschools.us) A copy of this RFP and corresponding worksheet can be found: http://www.casey.kyschools.us/administrativeDepartment.aspx?aid=1
- January 17, 2019 10:00AM EST Hub Site visit at Casey County High School 1841 E KY 70 Liberty, KY 42539. Notify Casey County Schools if you need to survey any non-hub site school district buildings, otherwise survey will include hub site facility only.
- January 24, 2019 10:00AM EST Questions must be submitted on or before this date/time to jerome.cummins@casey.kyschools.us.
- February 8, 2019 10:00AM EST RFP responses are due. Submit via email to: jerome.cummins@casey.kyschools.us with email Subject line “LDF2019”.
- February 15, 2019 10:00AM EST the RFP proposals will be opened.

This applicant (Casey County Schools) has the right to reject any and all proposals.

SERVICE PROVIDER CRITERIA
Casey County School District wishes to take advantage of E-Rate funding discounts. Only bidder(s) qualifying in the Federal E-Rate program will be considered. You must have a Service Provider Identification Number (SPIN), also known as the service provider's 498 ID.

SCOPE OF SERVICES
Casey County School District wishes to compare leased lit fiber and leased dark fiber. The current Wide Area Network Services are provided via dark fiber. Enhanced bandwidth fiber services are now required to support rapidly growing bandwidth needs and to meet the State Education Technology Directors Association standard recognized in the FCC Second E-rate Modernization order as the benchmark standard for bandwidth for school districts (or the American Library Association Standard for library bandwidth):
- Service is expected to be delivered to the district hub, the Casey County High School at 1841 E KY 70 Liberty, KY 42539
- Service is expected to be delivered to the eligible service locations from the district hub at the following locations:
  - Eligible Entity 1, the Jones Park Elementary school at 6295 E KY 70 Liberty, KY 42539
  - Eligible Entity 2, the Liberty Elementary school at 75 College Street Liberty, KY 42539
  - Eligible Entity 3, the Walnut Hill Elementary school at 2834 S US 127 Liberty, KY 42539
At the specified sites, respondent must run infrastructure or service to an existing network closet designated by Casey County School District, identified by “Location on campus” field on the “Addresses” worksheet of attached pricing spreadsheet or by site walk-through.

The new service and contract shall begin on July 1, 2019. (continuation contracts are acceptable as long as they provide service start date July 1, 2019.

The Casey County School District is seeking two options for bids. Respondents may bid one or two options.

1. The first option is a fully managed, leased lit fiber transport service from the hub to the specified eligible applicant sites. One-time special construction can be bid separately from the vendors proposed monthly recurring cost for the fully managed leased lit service.

2. The second option is for a leased dark fiber solution that includes special construction, the monthly lease fee, maintenance, and operations. One-time special construction costs should be bid separately from the monthly lease fee. Maintenance and operations fees can be included in the monthly lease fee.

In E-rate terminology, Special construction refers to the upfront, non-recurring costs associated with the installation of new fiber to or between eligible entities. Applicants may seek funding for special construction charges in connection with leased lit fiber, leased dark fiber, and self-provisioning. Special construction charges eligible for Category One support consist of three components:

1. construction of network facilities;
2. design and engineering; and
3. project management.

Note: The term “special construction” does not include Network Equipment necessary to light fiber, nor the services necessary to maintain the fiber. Charges for Network Equipment and fiber maintenance are eligible for Category One support as separate services, but not as special construction.

All options can include special construction or one-time E-rate eligible non-recurring costs as well as E-rate eligible recurring circuit costs. Based on the bids and both a short term and long term cost effectiveness analysis, Casey County School District will determine which, if any, of the lit service, leased dark fiber, Leased Dark fiber (IRU), district self-provisioned fiber construction or some combination of solutions is acceptable. The specifications related to each solution option are as follows.

Lit Service:
The Casey County School District must have dedicated Lit Transport Bandwidth throughput (upload and download) of 1GB – 10GB with Service Level Agreement (SLA) guarantees to all specified sites. All respondents must be capable of providing telecommunication services under the Universal Service Support Mechanism.

Casey County School District will NOT accept proposals for wireless, microwave or copper-based solutions.

Lit Service Price Proposal
The “Lit Pricing Sheet” worksheet includes pricing for symmetrical service from the hub to each eligible entity location at 1GB – 10GB. Price quotes are requested for 36 or 60 months terms of
service. Prices should be all inclusive. All inclusive in this case means, including all special construction or non-recurring costs (NRC) (see description in later section) required by the vendor to commence service and all monthly recurring costs (MRC) should be included in the requisite columns of the pricing sheets. No increased pricing will be allowed during the term of the quoted special construction/NRC and MRC rate in each pricing cell of the spreadsheet.

*Additional Description*
Each lit service response must also include description of proposal, SLA, timeline, network diagram, demarcation, references, and Connect America Fund status as described in later sections.

**Leased Dark Fiber**
As an alternative, respondents can quote a leased dark fiber network solution from the specified hub to the eligible service locations. The price quote should be for a lease of 2 strands of fiber from the hub to each eligible entity location.

*Leased Dark Fiber Price Proposal*
Each respondent is required to complete the pricing matrix appended as the “Leased Dark Fiber” worksheet in the spreadsheet accompanying this RFP. Respondents are encouraged to separate special construction charges as defined by E-rate eligibility rules. Preference will be given to proposals that offer pricing with most of the costs being paid up-front and minimal MRC and annual maintenance costs.

*Additional Description*
Each leased dark fiber response must also include description of proposal, description of maintenance, SLA, timeline, network diagram, demarcation, references, and Connect America Fund status as described in later sections. Operations and Internet Services can be bid “bundled” with a leased dark fiber bid, or as a stand-alone bids and must be described as such.

**General Terms for Leased Dark Fiber**
The following are general terms that apply to leased dark fiber builds. Respondents may offer maintenance and operations services, and network equipment purchase (if applicable), installation, and operations either themselves or through 3rd party subcontractors. In the case that respondents use external 3rd party service providers or contractors to deliver some or part of the solution, these should be clearly indicated in the response.

*Maintenance*
The Casey County School District requires on-going maintenance of the fiber on all Leased Dark Fiber solutions. Maintenance responses are required as follows:

- All dark fiber responses (leased dark fiber) require maintenance as part of the response, even if maintenance is subcontracted out to a third party. In the case of the third party maintenance, the respondent must hold and manage the subcontract and is ultimately responsible for the SLA. For a leased dark fiber solution, it is assumed that the Fiber Network is part of a more comprehensive fiber infrastructure of the service provider. The respondent will include only the portion of maintenance that is required to support the Casey County School District fiber segments versus overall network maintenance. If the fiber serves multiple customers, the cost of maintenance should be shared among all the recipients.
- If maintenance cannot be quoted for entire time span of the IRU, please include alternate
time span quote as well as explanation for the shorter time span.

- As part of the maintenance contract for an IRU, the fiber owner (not the district) must claim responsibility for repairs in the event of a catastrophic cut or relocate.
- As part of the maintenance contract for an IRU describe the process for relocates including assumption of costs.

Respondent shall maintain the applicable fiber seven days per week, twenty-four hours per day. Upon notification from the district of a malfunction relating to the applicable fiber, respondent shall respond to such malfunction within two (2) hours and thereafter proceed to correct the malfunction with reasonable diligence.

When pricing maintenance, the respondent should include an overview of fiber maintenance practices including:

- Routine maintenance and inspection,
- Scheduled maintenance windows and scheduling practices for planned outages,
- Marker and handhole inspection and repair,
- Handling of unscheduled outages and customer problem reports
- What service level agreement is included, and what alternative service levels may be available at additional cost,
- What agreements are in place with applicable utilities and utility contractors for emergency restoration,
- Repair of fiber breaks,
- Post repair testing,
- Mean time to repair,
- Replacement of damaged fiber,
- Replacement of fiber which no longer meets specifications,
- Policies for customer notification regarding maintenance,
- Process for changing procedures, including customer notification practices,
- Process for moves adds and changes,
- Process for responding to locate requests.

**Equipment, Installation, and Operations**

The Casey County School District requests that the respondent provide a quote for an annual operations cost to oversee the technical support of the circuit once the leased dark fiber, leased dark fiber (IRU) or self-provisioned fiber is available for service. Include price details in the “Operations” worksheet of the spreadsheet attached for equipment necessary to place the circuit into service at different bandwidth levels, managing each fiber run between the hub and the eligible entity location, installation and configuration of equipment at both the district hub and each eligible entity location, and annual cost to operate the equipment/circuits. Operations on leased dark fiber, leased dark fiber (IRU), or self-provisioned fiber may be bid as a stand-alone service, however, “bundled” holistic solutions will be preferred, as outlined in the evaluation criteria.

The annual operations cost should include provision of:

- Procurement of necessary hardware to light the fiber path(s)
- Manage initial inquiry and contracts needed to place equipment and cross connect to the Internet provider at the co-location facility
- Installation and configuration of equipment to put circuits into service
- Network monitoring on a 24x7x365 basis
Creation and communication of service tickets to Casey County School District escalation list

Incident response with timing standards that are in accordance to a Respondent provided service level agreement that meets general industry standards

Other industry standard provisions of broadband service technical support

Re-provisioning of equipment necessary to put circuits back into service after an outage

**Description of Proposal**
Respondent will provide a description of their proposal for all services and solutions. Description will include an overview of the proposal, any deviations from the requested architecture, design or requirements, assumptions made, other detail Casey County School District may find useful or necessary (or could differentiate the solution from a competing proposal).

**Service Level Agreement**
Respondent will provide a description of the proposed services and service levels provided with the lit fiber, dark fiber, and operations responses. The respondent will provide a proposed Service Level Agreement (SLA) with the RFP response. The proposal must include a description of the following services and how these services will be measured.

- Fiber Network Availability: the provider will make all reasonable efforts to ensure 99.9-99.99% network availability of each circuit.
- Lit and Operations proposals only: Frame/packet loss Commitment
- Lit and Operations proposals only: Network Latency Commitment
- Lit and Operations proposals only: Network Jitter Commitment
- There is no right of provider to limit or throttle the capacity of the circuit at any time for any reason

In addition to the required services, the proposal may include but is not to be limited to the following services:

- Network Operations Center: Solution will provide customer support functions including problem tracking, resolution and escalation support management on a 24x7x365 basis. Customer has the right and is encouraged to call concerning any problems that may arise relative to its connection with Vendor provided services.
- Trouble Reporting and Response: Upon interruption, degradation or loss of service, Customer may contact Vendor by defined method with a response based on trouble level. Upon contact from the Customer, the Vendor support team will initiate an immediate response to resolve any Customer issue. Customer will receive rapid feedback on trouble resolution, including potential resolution time.
- Escalation: In the event that service has not been restored in a timely manner, or the Customer does not feel that adequate attention has been allocated, the Customer can escalate the trouble resolution by request. A list of escalation contacts will be provided when implementation schedule is completed.
- Resolution: The Customer will be notified immediately once the problem is resolved and will be asked for verbal closure of the incident.
- Trouble Reporting, Escalation and Resolution: A detail trouble reporting, escalation and resolution plan will be provided to the district.
- Measurement: Vendor stated commitment is to respond to any outage within two (2) hours and a four (4) hour restoration of service. Time starts from the time the Customer contacts Vendor and identifies the problem. Credits for Outages of shortage will be identified.
- Reports: Upon request, an incident report will be made available to the Customer within five (5) working days of resolution of the trouble.
- Link Performance per segment: The service will maintain the proposed Link Performance throughout the term of the contract.
- Historical uptime: Provide aggregate uptime statistics for your proposed service in the geographic area encompassing the Casey County School District.

**Timeline**
For each response, respondents must include a construction roadmap timeline. For lit and dark fiber responses, preference is given to responses with a service start for all sites on July 1, 2019. Include how the timeline changes per site given an earlier or later start date.

**Demarcation**
All solutions whether lit fiber, leased dark fiber, leased dark fiber (IRU) or self provisioned fiber construction must terminate service or infrastructure to an existing network closet inside of the site specified. Solutions bringing service to the property line but not inside of the demarc address are not acceptable.

Respondent must specify your expected demarc setup included in base fees, e.g. fiber shelf with set-top box CPE and Cat6a handoff.

**Network Diagram**
For each response, respondents must include a network diagram displaying the paths to be used to serve the specified site. For self-provisioned fiber responses, respondents must include identification of aerial vs. buried fiber segments, detailed drawings showing fiber and equipment locations, and any other pertinent details.

**References**
For each response, respondent must provide 3 references from current or recent customers (preferably K-12) with projects equivalent to the size of Casey County School District. If respondent responds to more than one option (e.g. lit fiber service as well as leased dark fiber), provide 3 references for each.

**Special Construction and Non-recurring Cost**
Respondents providing lit fiber proposals which require an upfront payment may include a special construction cost or non-recurring cost. This upfront payment is considered special construction if any new fiber is being installed. If new fiber installation is not necessary, the payment is considered a non-recurring cost and must be entered into the pricing sheet accordingly.

New fiber special construction charges for lit service, leased dark, leased dark fiber (IRU), or self provisioned fiber projects as defined by the E-Rate Second Modernization order include construction, design, engineering and project management. The applicant requests that the respondents consider allowing Casey County School District to pay the non-discount share (share of special construction costs that are the responsibility of the applicant) to be paid in equal annual installments over the term of the contract. Responses must include agreement or non-agreement of this request.
The amount of special construction capital requested will be reviewed based on the cost of historical fiber builds in the region. Respondents should consider other business that may be generated by building fiber into the region and request only the special construction capital allocable to the Casey County School District service.

Required Notice to Proceed and Funding Availability
Casey County School District will follow the purchasing policies of the Casey County School District Board and requirements and procedures of the FCC’s E-rate program as administered by the Universal Service Administrative Company to be eligible for all available funding. The implementation of any associated contracts resulting from this competitive bid process will be dependent on the district’s issuance of a written Notice to Proceed. E-rate funding notification alone will not signify Notice to Proceed. The district will have the right to allow the contract to expire without implementation if appropriate funding does not come available.

All responding vendors must be a registered vendor with USAC and have a USAC issued Service Provider Identification Number-SPIN (498 ID). Responding vendors who do not have a USAC issue SPIN (498 ID) must demonstrate reasonable efforts to obtain a SPIN (498 ID) before the service start date.

E-rate Modernization Order Note

RFP Scoring Rubric
Leased lit fiber and Transport options (Also used for final comparison)

<table>
<thead>
<tr>
<th>% Weight</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>35%</td>
<td>E-rate eligible recurring and one-time circuit costs¹</td>
</tr>
<tr>
<td>15%</td>
<td>Timing: adherence to district preferred rollout timeframe²</td>
</tr>
<tr>
<td>15%</td>
<td>Ability to support requirements as laid out in the RFP³</td>
</tr>
<tr>
<td>15%</td>
<td>Proposed contract terms and conditions⁴</td>
</tr>
<tr>
<td>15%</td>
<td>Service Reliability</td>
</tr>
<tr>
<td>5%</td>
<td>Risk for district⁹</td>
</tr>
</tbody>
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*this element must always be the highest weighted

Leased Dark Fiber

<table>
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<th>Criteria</th>
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<tbody>
<tr>
<td>35%</td>
<td>E-rate eligible recurring and one-time costs¹</td>
</tr>
<tr>
<td>15%</td>
<td>Timing: adherence to district preferred rollout timeframe²</td>
</tr>
<tr>
<td>15%</td>
<td>Ability to support requirements as laid out in the RFP³</td>
</tr>
<tr>
<td>15%</td>
<td>Proposed contract terms and conditions and insurance⁴</td>
</tr>
<tr>
<td>15%</td>
<td>Maintenance SLA</td>
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</tbody>
</table>
Ability to offer turn-key solution (limited effort on behalf of district)*

*this element must always be the highest weighted

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### Equipment, Installation, and Operations

<table>
<thead>
<tr>
<th>% Weight</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>E-rate eligible recurring and one-time Operations costs including equipment and installation costs</td>
</tr>
<tr>
<td>15%</td>
<td>Ability to support requirements as laid out in the RFP³</td>
</tr>
<tr>
<td>15%</td>
<td>Proposed contract terms and conditions⁴</td>
</tr>
<tr>
<td>15%</td>
<td>Service Reliability</td>
</tr>
<tr>
<td>10%</td>
<td>Provider references⁸</td>
</tr>
</tbody>
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### Notes:

1: **E-rate eligible circuit cost** is the total cost of ownership that includes special construction and NRC in addition to MRC and includes any and all services that will be applied on a monthly recurring basis. E.g. for self provisioned fiber, recurring circuit costs will include operate, maintain, ISP, and any other monthly service fees. E-rate special construction costs should be clearly indicated and separated from any other E-rate eligible NRC cost. All services offered must be eligible for E-rate Category 1 discounts.

2: **Timing of build**: all bidders are advised to commit to an initial roadmap for rollout of their solution per circuit, based on the E-rate and District timeline. The roadmap should include all steps towards deployment and “go live” of all circuits within this RFP. Any risks or contingencies on the timing should be clearly highlighted in the response.

3: **Requirements**: preference will be given to bidders who can provide the highest level of compliance to all requirements laid out in this document.

4: **Terms, conditions, [and insurance]**: preference will be given to bidders that provide the most favorable conditions and insurance for implementation and ongoing service. These elements include (but are not restricted to): length of contracts, ability to scale bandwidth within the contract period, flexibility in timing of up-front payments, etc.

5: **Service Reliability**: preference will be given to bidders that provide a favorable SLA for the district, and have a robust network architecture and documented history of service reliability.

6: **Turn-key solution**: the district has a clear preference for providers who can offer a “bundled” holistic, all-in-one solution and effort required by the district before, during, and after installation is minimal. Therefore preference will be given to bidders who either offer all services independently or via 3rd party subcontractors as a complete package including fiber construction, terminating equipment, fiber installation and operations, and scheduled and unscheduled maintenance.
7: **Fiber optic solutions:** preference will be given to solutions based on fiber optic technologies, as the district believes that this will provide maximum future scalability. Bidders are encouraged to outline how fiber optic solutions could be scaled into the future, including potential pricing increments for additional bandwidth that may be likely during the contract period.

8: **References:** preference will be given to bidders who are able to demonstrate a track record of successfully working with K-12 school districts or similarly sized customers within the state to provide high-quality, affordable solutions and exemplary ongoing service. Bidders should be able to provide access to up to 3 references as part of the evaluation process, as and when requested by the District.

9: **Risk for district:** District seeks to minimize any potential risks related to construction and ownership of fiber infrastructure. When evaluating solutions, the district will award more points to lower risk solutions and fewer points to high risk solutions according to SLAs, maintenance, and construction proposals.