

Ashland Independent School District Fiber Request

Bid closes January 31, 2019 @ 10:00 am

SCOPE OF SERVICES

Ashland Independent School District wishes to compare leased lit fiber and leased dark fiber. The current Wide Area Network Services are provided via Windstream but enhanced bandwidth fiber services are now required to support rapidly growing bandwidth needs and to meet the State Education Technology Standards.

Service is expected to be delivered to the district hub Ashland Board Of Education at 1820 Hickman St. Ashland, KY 41101

- Service is expected to be delivered to the eligible/Non eligible service locations from the district hub at the following locations:
 - o Eligible Entity 1, the Crabbe Elementary School at 520 17th St. Ashland, KY 41101
 - o Eligible Entity 2, the Hager Elementary School at 1600 Blackburn Ave. Ashland, KY 41101
 - o Eligible Entity 3, the Oakview Elementary School at 3111 Blackburn Ave. Ashland, KY 41101
 - o Eligible Entity 4, the Poage Elementary School at 3215 South 29th St. Ashland, KY 41102
 - o Eligible Entity 5, the Charles Russell Elementary School at 1100 Russell St. Ashland, KY 41101
 - o Eligible Entity 6, the Paul G. Blazer High School at 1500 Blazer Blvd. Ashland, KY 41102
 - o Eligible Entity 7, the Ashland Middle School at 2800 Kansas St. Ashland, KY 41102
 - o Eligible Entity 8, the Ashland Schools Bus Garage at 1420 Berry St. Ashland KY 41102

At the specified sites, bidder must run infrastructure or service to an existing network closet designated by Ashland Independent School District.

Ashland Independent School District shall provide collation space and power in applicable location(s) and access to such space, including and necessary easement and building entrance rights to extend network from the public right of way into such location(s).

The new service is being planned to begin on July 1, 2019, which represents the expiration of the current leased lit fiber service.

The Ashland Independent School District is seeking two options for bids.

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. Maintenance and operations fees can be included in the monthly lease fee.

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, Ashland Independent 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.

All bidders must have a Service Provider Identification Number (SPIN) on file with the Universal Service Administrative Company www.sl.universalservice.org. Additionally, the bidder must be recognized as a Telecommunications Provider by USAC. The bidder SPIN shall be listed on the Proposal.

Proposals shall assert that the bidder has included all cost for right-of-way easements, pole attachments and permits associated with completing the project. Ashland Independent School District will not consider changes in cost or terms arising from the data link construction conditions or fees from third parties.

Acknowledgment should be made of the fact Ashland Independent School District operates on an annual budget and cannot forecast financial circumstances beyond one fiscal year. Should a dire financial situation arise upon 60 day notification, Ashland Independent School District may be released from the contract due to such adverse conditions.

All questions related to this project can be directed to Lennie.Oxyer@Ashland.kyschools.us or 606-327-2706 Ext 2735

All proposals must be submitted in writing by sealed envelope to the attention of, Cary Williams, Director of Technology, 1820 Hickman St. Ashland, KY 41101. Prior to the time and date listed at the top. All envelopes shall be clearly labeled “Sealed Bid” and “District-wide Network Upgrade”

Ashland Independent School District reserves the right to determine the ability of any Contractor to perform the work. All requirements of the Proposal will be reviewed in the evaluation of each bid. In determining the qualifications and responsibilities of the bidder, Ashland Independent School District shall take into consideration the bidder’s skill, experience, facility, previous work standing, financial standing, capacity and ability to handle work in addition to that in progress, and quality and efficiency of construction plant and equipment to be utilized on the project.

The successful bidder will be responsible for all physical changes required by local, state or federal agencies and must adhere to all local, state and federal codes.

The service provider shall assume during the life of the contract, irrespective of physical media revisions.

The service provider shall retain ownership and responsibility for all equipment and / physical plant installed as part of this contract.

Lit Service:

The Ashland Independent School District must have dedicated Lit Transport Bandwidth throughput (upload and download) of a minimum 1Gigabit Service Level Agreement (SLA) guarantees to all specified sites. The solution must be scalable from 1Gigabit to 10Gigabit compatible 2 strands of Single Mode fiber from the hub to each eligible entity location. **All respondents must be capable of providing telecommunication services under the Universal Service Support Mechanism.**

Lit Service Price Proposal

The price quote should include monthly cost for both 1GB and 10GB.

Price quotes are requested for [12 month, 36 month and 60 month] 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. No increased pricing will be allowed during the term of the quoted special construction/NRC and MRC rate in each pricing.

Technical Specifications

1.1 Interfaces

The provider shall hand off to Ashland Independent School District a 1 Gigabit Ethernet copper connection into the MDF and each location, or 10 Gigabit via SFP.

1.2 VLAN Transparency

Ashland Independent School District must be able to configure their own VLAN on Ashland Independent School District equipment between locations without needing to coordinate with provider to provision their equipment.

1.3 Routing

The service shall provide OSI layer II connectivity only. Layer III routing will be provided by Ashland Independent School District at the Board Of Education Office HUB Site.

1.4 Transparency

Ashland Independent School District data and bandwidth shall be kept isolated from foreign traffic.

Additional Description

Each lit service response must also include description of proposal, SLA, timeline, network diagram, demarcation, references.

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 99.999% network availability of each circuit.
- Lit and Operations proposals only: Frame/packet loss .25% commitment
- Lit and Operations proposals only: 25 ms Network Latency Commitment
- There is no right of provider to limit or throttle the capacity of the circuit at any time for any reason

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 10 Gigabit compatible 2 strands of Single Mode fiber from the hub to each eligible entity location.

Leased Dark Fiber Price Proposal

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.

Technical Specifications

1.5 VLAN Transparency

Ashland Independent School District must be able to configure their own VLAN on Ashland Independent School District equipment between locations without needing to coordinate with provider to provision their equipment.

1.6 Routing

The service shall provide OSI layer II connectivity only. Layer III routing will be provided by Ashland Independent School District at the Board Of Education Office HUB Site.

1.7 Transparency

Ashland Independent School District data and bandwidth shall be kept isolated from foreign traffic.

Additional Description

Each leased dark fiber response must also include description of proposal, description of maintenance, SLA, timeline, network diagram, demarcation, references.

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, 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 Ashland Independent 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 Ashland Independent 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

Ashland Independent 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.

As part of this bid for leased dark fiber, leased dark fiber (IRU) or self-provisioned fiber Ashland Independent School District requires that All Electronics necessary to light dark fiber and allow for communication between hub and sites should be bid separately by a KETS Contract Holder.

The requested equipment from the State KETS Contract should be as follows, or bid equivalent electronics in the bid.

Extreme Networks

Part # EC4400A05-E6

Qty 4

Description: VSP 4450GSX-PWR+ with 12 10/100/1000 Base T PoE+ ports, 36 1 G SFP ports and two 10G SFP+ uplink ports.

Part # AL1905A21-E6

Qty 4

Description: VSP 4450GSX-PWR+ 1000W AC SPARE POWER SUPPLY (NO POWER CORD)

Part # EC7200A2F-E6

Qty 1

Description: VSP 7254XTQ WITH 48 100M/1G/10GBASE-T AND 6 40G QSFP+ PORTS WITH FRONT TO BACK COOLING, 1 800W AC PS (NO POWER CORD). INCLUDES BASE LICENSE, FAN MODULES, AC PSU AND NO POWER CORD . PLUGGABLE TRANSCEIVERS AND OPTIONAL RACK MOUNT KIT SOLD SEPARATELY.

Part # EC7200A3F-E6

Qty 5

Description: VSP 7254XSQ WITH 24 1/10G SFP+ AND 4 40G QSFP+ PORTS ENABLED. INCL. BASE LIC, FRONT TO BACK FANS, 1 460W AC PSU (NO POWER CORD). TRANSCEIVERS AND OPTNL RACK MOUNT KIT SOLD SEPARATELY. OPTNL SW LICENSE REQUIRED TO ENABLE ALL 48 10G AND 6 40G PORTS.

Part # EC7205A0F-E6

Qty 1

Description: VSP 7200 800W AC SPARE POWER SUPPLY FRONT TO BACK COOLING (NO POWER CORD)

Part # EC7205A1F-E6

Qty 5

Description: VSP 7200 460W AC SPARE POWER SUPPLY FRONT TO BACK COOLING (NO POWER CORD)

Part # AA1404030-E6

Qty 3

Description: 40 GIGABIT ETHERNET QSFP+ TO QSFP+ DAC CABLE 2METER (PASSIVE COPPER CABLE)

Part # AA1403169-E6

Qty 10

Description: 1-Port 10GBASE-BX, 10km reach, Small Form Factor Pluggable Plus (SFP+) transceiver, connector type: LC, TX: 1270nm, RX: 1330nm wavelength. Must be paired with AA1403170-E6

Part # AA1403170-E6

Qty 10

Description: 1-Port 10GBASE-BX, 10km reach, Small Form Factor Pluggable Plus (SFP+) transceiver, connector type: LC, TX: 1330nm, RX: 1270nm wavelength. Must be paired with AA1403169-E6

Part # AA1403019-E6

Qty 7

Description: SFP+ Direct Attach Cable. 3m

Part # AA1419069-E6

Qty 4

Description: 1-port 1000BASE-BX Small Form Factor Pluggable (SFP) Gigabit Ethernet Transceiver, connector type: LC - 1310nm Wavelength. Must be paired with AA1419070-E6

Part # AA1419070-E6

Qty 4

Description: 1-port 1000Base-BX Small Form Factor Pluggable GBIC (mini-GBIC, connector type: LC) - 1490nm Wavelength. Must be paired with AA1419069