Alabama Supercomputer Authority

REQUEST FOR PROPOSAL

ASA.RFP.07012023

FOR THE PROVISIONING, MANAGEMENT, AND OPERATION OF COMPUTER AND NETWORK SYSTEMS

04/04/2022
Amended– 05/04/2022 (Amendment 1)
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1 INTRODUCTION

1.1 Statement of Purpose

The Alabama Supercomputer Authority, hereafter referred to as the AUTHORITY, intends to secure a Professional Services Contract for the provisioning, management and operation of the computer and network systems for the AUTHORITY. The AUTHORITY operates the Alabama Research and Education Network (AREN) which serves Alabama schools and libraries. The funding for the Contract will include State and Federal funds.

The purpose of the Request for Proposal (RFP) is to solicit proposals from qualified PROPOSERS that can meet or exceed the levels of services required for the provisioning, management, and operation of the network systems of the AUTHORITY as defined herein. The AUTHORITY intends to identify the PROPOSER or PROPOSERS that can provide the required levels of services at the most competitive prices and to award a Professional Services Contract with such PROPOSER or PROPOSERS under terms and conditions acceptable to the AUTHORITY and which are in conformance with applicable governing laws and regulations. If Contract negotiations with the preferred PROPOSER(S) are not successful, the AUTHORITY may proceed to Contract negotiations with any other PROPOSER(S) responding to the RFP. No Contract resulting from this RFP will be final until it receives all approvals required by State law or regulation. The AUTHORITY reserves the right to cancel or modify this procurement process at any time based upon the best interest of the AUTHORITY or the State of Alabama.

This is an E-rate related Request for Proposal (RFP). To warrant consideration for an award of Contract resulting from this RFP, PROPOSERS must acknowledge its agreement to participation in the Universal Service Support Mechanism for Schools and Libraries (commonly known as “E-rate”) as provided for and authorized under the Federal Telecommunications Act of 1996 (Reference 47 U.S.C. 254, “Universal Service”). PROPOSERS must acknowledge its agreement that any contractual relationship resulting from this solicitation of proposal may be partially or entirely dependent upon the successful receipt of Universal Service Fund (“USF”) subsidies. To ensure compliance with all applicable USF regulations, program mandates and auditing requirements, PROPOSERS must comply with all rules and regulations as outlined on the Universal Service Administrative Company’s (USAC) website related to E-rate (usac.org).

The Alabama Supercomputer Authority is a public corporation created by Section 41-10-390, et seq., Code of Alabama 1975. The mission of the AUTHORITY is to provide information technology resources and services for the advancement of education, research, and economic development in Alabama.

The duty of the AUTHORITY is to administer and operate the Alabama Supercomputer Center (ASC) for high performance computing for the primary purpose of providing state-of-the-art technology for
scientific research and development to educational institutions, governmental agencies, and private sector organizations.

The AUTHORITY, through the Alabama Research and Education Network (AREN), is a statewide education network and service provider for public K-12, charter schools, community colleges, universities, and public libraries. The AUTHORITY also provides network services to some government agencies and business entities for a fee.

1.2 Scope of Service

The purpose of this RFP is to detail the scope of services and deliverables required by the AUTHORITY. Section 9 includes the General Terms and Conditions the AUTHORITY expects will be included in a final contractual agreement with the selected PROPOSER.

1.3 Contract Term

The AUTHORITY intends to award a five (5) year Contract with an effective term of 7/01/2023 through 6/30/2028.

The AUTHORITY reserves the right to extend the Contract for an additional period of no more than two (2) years, provided that the AUTHORITY notifies the CONTRACTOR in writing of its intention to do so at least sixty (60) days prior to the Contract expiration date. An amendment to the contract covering the additional time period shall be based upon rates provided for in the original Contract.

1.4 RFP Number

The AUTHORITY has assigned the following RFP identification which must be referenced in all communications regarding the RFP: ASA.RFP.07012023

Information regarding this RFP will be posted and maintained on the homepage of the Alabama Supercomputer Authority (asc.edu).

1.5 Definitions

As used in this document, except where clearly indicated otherwise, the following definitions apply:

- “2016 Contract” refers to the professional services contract currently existing between ASA and CSRA State and Local Solutions LLC as amended.
“Alabama Supercomputer Authority” or “ASA” or “AUTHORITY” refers to the public corporation created by Section 41-10-390, et seq., Code of Alabama 1975.

“PROPOSER” refers to the professional service provider submitting a Proposal in response to this RFP.

“CONTRACTOR” refers to the professional service provider responsible for all items required in Contract once contract is awarded.

“Subcontractor” refers to an organization or company that reports to the CONTRACTOR in response to this RFP.

“Transport Subcontractor” refers to a PROPOSER who provides data transport between two or more locations.

“Non-Transport Subcontractor” refers to a PROPOSER who does not meet the definition of a transport subcontractor.

“INCUMBENT CONTRACTOR” or “CSRA” refers to CSRA State and Local Solutions LLC, 310 The Bridge Street, Huntsville, AL 35806.

“Alabama Supercomputer Center” or “ASC” refers to the ASA facility located at 686 Discovery Drive, Huntsville, AL 35806.

“AREN” refers to the Alabama Research and Education Network operated by the AUTHORITY.

“Chief Executive Officer” or “CEO” refers to the Chief Executive Officer of ASA.

“Contract” or “Professional Services Agreement” refers to the contractual document to be executed between the AUTHORITY and the PROPOSER best meeting the needs of the AUTHORITY.

“Work Order” refers to a written order from the AUTHORITY providing specific authorization to the CONTRACTOR to proceed with the service as provided and within the guidelines of the Contract.

“Contract Work Order” refers to a monthly detailed listing of services provided including any changes in services.

“E-rate” or “E-rate Program” refers to the Universal Service Support Mechanism for Schools and Libraries.
• “Executive Committee” refers to a standing committee of the ASA Board of Directors.

• “Evaluation Committee” refers to a committee comprised of cross-disciplined subject matter experts.

• “Key Positions” refers to the following: Program Director, Network Operations Manager, Senior Network Engineer (Planning and Design), Senior Network Engineer (Operations), Senior HPC Application Analyst (PH.D. credentials), Senior HPC Systems Analyst, Applications Development Manager, Senior Applications Developer, Systems Admin Manager, Security Operations Manager, Cybersecurity Analyst, Service Delivery Manager, Help Desk Coordinator, Business Operations Manager, Senior E-rate Specialist.

• Maximum Financial Liability” refers to the maximum amount of funds that may be paid by the AUTHORITY to the contracting CONTRACTOR. Maximum Financial Liability will be stated as a “not to exceed” amount in the Contract and any amendment thereto. This amount will not include E-Rate funds paid directly to the CONTRACTOR by USAC for E-Rate eligible services that the CONTRACTOR has provided.

• “May” or “should” means, when preceding a term, condition, or requirement of this RFP, that the PROPOSER is invited to address or respond to the term, condition, or requirement. Failure to address or respond to such a term, condition, or requirement will not, in and of itself, result in the PROPOSER being eliminated from consideration.

• “Must” or “shall” or “will” means, when preceding a term, condition, or requirement of this RFP, that the PROPOSER is required to address or respond to the term, condition, or requirement of this RFP. Failure to address such a term, condition, or requirement could result in the PROPOSER being eliminated from consideration.

• “Private data” refers to information concerning a person, school system, library, government entity, or any other client that can be reasonably expected to be secured from public view.

• “Proposal” refers to a written response to the requirements, terms, and conditions of this RFP. The AUTHORITY considers a Proposal an offer to contract pursuant to the terms and conditions of the Proposal and the RFP.

• “Request for Proposal” or “RFP” refers to this document. This RFP is not an offer to contract.

• “RFP Coordinator” refers to the single official point of contact identified in Section 1.9.1 of the RFP for questions, issues, or concerns regarding the RFP.
• “Service Level Agreement” or “SLA” refers to statements in measurable terms of the level of service to be provided by the PROPOSER in this RFP.

• “Service Provider” or “AREN Consortium Service Provider” refers to the awarded CONTRACTOR providing the E-rate eligible and ineligible services as specified in this RFP.

• “True-up” refers to the funding year adjustment to reconcile projected E-rate discounts given on CONTRACTOR’S monthly invoices to the actual E-rate discounts due to the AUTHORITY for E-rate eligible services filed for by the CONTRACTOR with USAC.

• “Universal Service Administrative Company” or “USAC” refers to the entity responsible for the management, control and operation of the E-rate Program and other programs.

• “Universal Service Fund” or “USF” refers to a system of telecommunications subsidies and fees managed by the Federal Communications Commission (FCC) intended to promote universal access to telecommunications services in the United States.

1.6 Disclaimer

Information contained in the RFP and its attachments, including amendments and modifications thereto, reflect the most accurate information available to the AUTHORITY at the time of RFP preparation. Inaccuracies in such data will not constitute a basis for an increase in payments to the CONTRACTOR, a basis for delay in performance, or give rise to any type of claim, cause of action or demand for the recovery of damages in any form, actual, consequential, punitive, or otherwise.

1.7 Mandatory Proposers Conference

There will be a mandatory conference of all PROPOSERS interested in submitting a Proposal in response to this RFP. The PROPOSER submitting the Proposal, or its representative, must register as required at the site of this mandatory conference. A Proposal submitted by a PROPOSER which failed to attend the mandatory conference and register as required will be rejected upon receipt. PROPOSER must acknowledge its agreement.

The mandatory conference will be held at the Alabama Center for Commerce (Auditorium Room 770), 401 Adams Avenue, Montgomery, AL from 1:00 p.m. – 5:00 p.m. on Thursday, May 5, 2022.

PROPOSERS will have the opportunity to ask questions during the conference. The AUTHORITY will post written responses to all questions as provided in this section.
1.8 Proposal Deadline

Proposals must be submitted to the AUTHORITY and received by the AUTHORITY no later than the Deadline for Submitting a Proposal time and date specified in Section 2, RFP Schedule of Events. PROPOSERS must respond to all sections of the RFP and any attachments or amendments. Proposals submitted after the Proposal Deadline cannot be considered and will be returned to the PROPOSER unopened. Delivery requirements are specified in Section 3, Proposal Format and Content.

The PROPOSER assumes the risk of the method of delivery chosen. The AUTHORITY assumes no responsibility for delays caused by any delivery service. Postmarking by the due date will not substitute for actual Proposal receipt by the AUTHORITY. Late proposals will not be accepted, nor will additional time be granted to any potential PROPOSER.

1.9 Communications Regarding the RFP

1.9.1 RFP Coordinator

The single point of contact for this RFP will be the:

   RFP Coordinator
   Troy University
   ASA-RFP-Coordinator2023@troy.edu

The point of contact will be hereinafter referred to as the RFP Coordinator and is the single official point of contact for this RFP.

1.9.2 Contact with Authority Staff

The integrity of the RFP process is of paramount importance to the AUTHORITY and will not be compromised. From the date this RFP is issued and throughout the evaluation process, PROPOSERS, their associates, and representatives must not initiate communication with any AUTHORITY staff members, officials, AUTHORITY board members, Evaluation Committee members, or representatives regarding this RFP except as defined in this section. Any unauthorized contact regarding this RFP may disqualify the PROPOSER from further consideration.

Questions or inquiries regarding the RFP, or the selection and evaluation process, will be considered only when submitted as directed by the provisions as defined in this section. All communications must be via e-mail to the RFP Coordinator at the e-mail address as defined in this section. Any oral communications outside the Mandatory Proposers Conference, where oral questions will be recorded, will be considered unofficial and non-binding to the AUTHORITY.
PROPOSERS must acknowledge its agreement to only contact the RFP Coordinator.

1.9.3 RFP Website

This RFP, and all notices, amendments, and public communication regarding this RFP will be posted on the Alabama Supercomputer Authority homepage (asc.edu).

Reasonable effort will be made to maintain reliable and efficient access to this site and its associated content. However, the AUTHORITY is not liable for any PROPOSER problems or errors including, but not limited to, missed deadlines that may arise due to temporary technical failures related to this website.

1.9.4 Proposer RFP Questions

PROPOSERS requiring clarification or interpretation of any Section within this RFP must submit questions by e-mail to:

ASA-RFP-Coordinator2023@troy.edu

Submitted questions and requests for clarification must:

- PROPOSER Company Name
- List the Section X.X in question,
- Cite the Section title identified in the Section X.X,
- List the RFP page number.
- Detailed question(s)

The RFP Coordinator must receive these requests via e-mail by the deadlines specified in Section 2, RFP Schedule of Events. The AUTHORITY will review and provide official written answers to all questions received. All question responses will be posted on the Alabama Supercomputer Authority website as defined in Section 2, RFP Schedule of Events.

Communications that result in a significant change to the RFP may be listed as an amendment to the RFP. Only posted responses to e-mailed communications will be considered official and binding upon the AUTHORITY. The AUTHORITY reserves the right, at its sole discretion, to determine appropriate and adequate responses to PROPOSER questions and requests for clarification. It is the responsibility of the PROPOSER to check the website for posted questions, answers, and any updates.
1.9.5 Amendment

As a result of the questions received or due to other circumstances, the AUTHORITY may modify, change, or cancel the RFP. In the event the RFP is modified, the modifications will be posted as a formal amendment and added to the ASA website. The PROPOSER is responsible for checking the website for all posted changes. A formal amendment to the RFP will automatically extend the Proposal submission date if needed to ensure there is twenty-eight (28) days between posting of an amendment and the submission deadline, the new deadline will be posted on the website as applicable. If the changes are major and extensive, the AUTHORITY may, at its discretion, withdraw this RFP and may or may not issue a replacement. Failure to incorporate amendments in the submitted Proposal will result in the Proposal being considered incomplete.

1.9.6 Oral Presentations

The AUTHORITY may request an oral presentation from PROPOSERS. The AUTHORITY will not be liable for any costs associated with the presentation. The PROPOSER must acknowledge its agreement to provide an oral presentation if requested by the AUTHORITY as part of its evaluation process. This presentation must show the capabilities of a PROPOSER to provide the services as outlined in the PROPOSER’S Proposal. These presentations could include requests for additional information and may be part of the evaluation process.

1.10 Licensure

Before a Contract pursuant to this RFP is signed, the CONTRACTOR must hold all necessary, applicable business and professional licenses to do business in the State of Alabama. The AUTHORITY may require any or all PROPOSERS to submit evidence of proper licensure. PROPOSER must acknowledge its agreement.

1.11 General Liability Insurance

Prior to the execution of a Contract, the CONTRACTOR must present evidence that it has in place a general liability insurance policy for a minimum amount of ten million dollars ($10,000,000) for each occurrence which names the AUTHORITY as an additional insured. This or another policy approved by the AUTHORITY must remain in place throughout the term of the Contract. PROPOSER must acknowledge its agreement.

1.12 Cyber Liability Insurance

Prior to the execution of a Contract, the CONTRACTOR must present evidence that it has in place a cyber liability insurance policy for a minimum amount of ten million dollars ($10,000,000) for each
occurrence which names the AUTHORITY as an additional insured. This or another policy approved by the AUTHORITY must remain in place throughout the term of the Contract. PROPOSER must acknowledge its agreement.

The cyber liability insurance policy must cover at a minimum the following:

- Notifying customers that their personal information was exposed,
- Purchasing credit monitoring services for affected customers, and
- Investigating the source of the data breach.

1.13 Nondiscrimination

No person may be excluded from participation in, be denied benefits of, be discriminated against in the admission or access to, or be discriminated against in treatment or employment in the AUTHORITY’S contracted programs or activities on the grounds of handicap and/or disability, age, race, color, religion, sex, national origin, or any other classification protected by Federal or Alabama State Constitutional or statutory law; nor may they be excluded from participation, be denied benefits of, or be otherwise subjected to discrimination in the performance of the Contract with the AUTHORITY or in the employment practices of the AUTHORITY’S contractors. Accordingly, a CONTRACTOR awarded a Contract with the AUTHORITY shall, upon request, be required to show proof of such nondiscrimination and to post in conspicuous places, available to all employees and applicants, notice of nondiscrimination. PROPOSER must acknowledge its agreement.
2 RFP SCHEDULE OF EVENTS

The following RFP Schedule of Events represents the AUTHORITY’S best estimate of the schedule that will be followed. Unless otherwise specified, the time of day for the following events will be between 8:00 a.m. and 5:00 p.m., Central Time.

The AUTHORITY reserves the right, at its discretion, to adjust this schedule as necessary. Notification of any adjustments to the Schedule of Events will be provided via the Alabama Supercomputer Authority (ASA) website (http://www.asc.edu).

A tour of the Alabama Supercomputer Center (ASC) facility located in Huntsville, AL, is available upon request. Tours can be scheduled during the hours of 10:00 a.m. to noon by contacting the RFP Coordinator at ASA-RFP-Coordinator2023@troy.edu to schedule a tour.

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<th>Event</th>
<th>Date</th>
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<tr>
<td>1</td>
<td>AUTHORITY: Post E-rate Form 470 through USAC website (usac.org)</td>
<td>03/28/2022</td>
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<td>2</td>
<td>AUTHORITY: Publish RFP via the ASA website.</td>
<td>04/04/2022</td>
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<td>3</td>
<td>Deadline for Written Comments and Questions</td>
<td>04/18/2022</td>
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<td>4</td>
<td>AUTHORITY: Post Responses to Comments and Questions</td>
<td>05/02/2022</td>
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<td>5</td>
<td>Mandatory Proposers Conference (ACC Auditorium Rm 770) 401 Adams Avenue, Montgomery, AL 36104 beginning at 1:00 pm CST.</td>
<td>05/05/2022</td>
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<td>6</td>
<td>AUTHORITY: Post Written Responses to Comments and Questions from Mandatory Proposers Conference via the ASA website.</td>
<td>05/27/2022</td>
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<td>Deadline for Submitting Proposal</td>
<td>07/01/2022</td>
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<td>PROPOSER Oral Presentations – the Week of</td>
<td>08/22/2022</td>
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<td>Authority: Evaluation Committee Presents Recommendation to the Authority.</td>
<td>8/31/2022</td>
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<tr>
<td>10</td>
<td>Authority: Final Selection Recommended by the Authority's Board Executive Committee to the Authority's Board of Directors for Approval.</td>
<td>09/14/2022</td>
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<td>11</td>
<td>New Contract Begins</td>
<td>07/01/2023</td>
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</table>
3 PROPOSAL FORMAT AND CONTENT

3.1 Proposal Transmittal Letter

3.1.1 A Proposal Transmittal Letter should be the first page of the Proposal in the form of a standard business letter on business letterhead. The Proposal Transmittal Letter must be signed by an individual empowered to obligate the PROPOSER to the provisions of the RFP. The letter must be properly signed and notarized, or it may be rejected.

3.1.2 The letter must state that the Proposal remains valid for at least one hundred and eighty (180) days subsequent to the Deadline for Submitting Proposal (Section 2, RFP Schedule of Events) and thereafter in accordance with any resulting Contract between the PROPOSER and the AUTHORITY.

3.1.3 The letter must provide the complete legal entity name and Federal Employer Identification Number (FEIN), the name, physical address, e-mail address, and telephone number of the contact person of the PROPOSER making the Proposal.

3.1.4 The letter must state whether the PROPOSER or any individual who will perform work under a resulting Contract has a possible conflict of interest (i.e., employment by the AUTHORITY) and, if so, must state the nature of the conflict. The AUTHORITY reserves the right to reject a Proposal if any interest disclosed from any source could either give the appearance of a conflict of interest or cause speculation as to the objectivity of the offer. Such determination regarding any questions of conflict of interest will be solely within the discretion of the AUTHORITY.

3.1.5 The letter must state unequivocal understanding of the general information presented in all RFP sections and attachments and agree with all requirements/conditions listed in the RFP, without exception.

3.1.6 The letter must state that the PROPOSER understands and will comply with the general terms and conditions as set out in Section 9. Additions or exceptions to the standard terms and conditions are not allowed. If PROPOSER fails to provide such confirmation, the Proposal may be rejected.

3.1.7 The letter must state that the PROPOSER understands and will comply with the requirements of providing a Performance Bond as stated in this RFP.

3.1.8 The letter must state that the PROPOSER is legally registered and licensed to do business in the State of Alabama.

3.1.9 The letter must include a statement indicating that the PROPOSER is current on all taxes (federal, state, local) including, but not limited to, taxes on income, sales, property, etc.
3.1.10 The letter must state that the **PROPOSER** acknowledges that the **PROPOSER** has a continuing obligation to disclose any change of circumstances that will affect its qualifications as a **PROPOSER**. The **AUTHORITY** reserves the right to review and approve any additions or removal of subcontractors, although such approval will not be unreasonably withheld.

3.1.11 As a condition of the award of any Contract, grant or incentive by the state, any political subdivisions thereof, or any state-funded entity to a business entity or employer that employs one or more employees working in the State of Alabama, the business entity or employer shall provide documentation establishing that the business entity or employer is enrolled in the E-verify program imposed by State of Alabama law Section 31-13-1, et seq., Code of Alabama 1975. The letter must state that the **PROPOSER** acknowledges this compliance requirement.

### 3.2 General Format

3.2.1 **PROPOSER** must respond to this RFP with a Proposal divided into the following four major Sections:

1. Proposer Qualifications and Experience
2. Technical Requirements
3. Cost Proposal
4. Transition Management

Each of these Sections must reference the RFP Sections to which the **PROPOSER** is responding and must be preceded by a Table of Contents.

3.2.2 **PROPOSER** must structure the Proposal in the same sequence, using the same labeling and numbering that appears in the RFP Section in question. For example, the Proposal must have a major Section entitled “Proposer Qualifications and Experience.” Within this Section, the **PROPOSER** will include their response, addressing each of the numbered Sections in sequence, as they appear in the RFP: i.e., 4.2.1, 4.2.2, 4.2.3, and so on. The response to each Section must be preceded by the Section text of the RFP followed by the **PROPOSER’S** response.

3.2.3 This RFP and its attachments are available by electronic means on the **AUTHORITY** website (asc.edu). The **PROPOSER** acknowledges and accepts full responsibility to ensure that no changes are made to the RFP. In the event of inconsistencies or contradictions between language contained in the RFP and a **PROPOSER’S** response, the language contained in the RFP will prevail. Should the **AUTHORITY** issue an amendment to the original RFP, then said amendment, being more recently issued, would prevail against both the original RFP and the **PROPOSER’S** Proposal in the event of an inconsistency, ambiguity, or conflict.
3.2.4 Proposals must not include references to information located elsewhere, such as Internet websites. Information or materials presented by the PROPOSER outside the formal response or subsequent discussion/negotiation, unless specifically requested by the AUTHORITY, will not be considered, and will have no bearing on the selection of a PROPOSER.

3.2.5 Proposals must be prepared on standard 8 ½” x 11” paper and must be bound. All Proposal pages must be numbered unless specified otherwise. Foldouts containing charts, spreadsheets, and oversize exhibits are permissible. All Proposals, as well as any reference material presented, must be written in English.

3.3 Submission

3.3.1 Proposals must be received at the location below by the date and time specified as the Deadline for Submitting Proposal as specified in Section 2, RFP Schedule of Events.

RFP Coordinator  
ATTN: Alabama Supercomputer Authority RFP  
Rosa Parks Museum  
Troy University Montgomery Campus  
Room 327  
252 Montgomery Street  
Montgomery, Alabama 36104

It will be the PROPOSER’S sole responsibility to assure delivery at the designated location by the designated time within the prescribed hours. A Proposal received after the deadline specified in Section 2, RFP Schedule of Events will not be accepted and will be returned to the PROPOSER unopened.

3.3.2 PROPOSERS must not submit multiple Proposals in response to this RFP. A PROPOSER may submit a Proposal in response to this RFP as the Prime Contractor and participate in other Proposals as a Subcontractor. There is no limitation regarding the number of Proposals naming a PROPOSER as a Subcontractor.

3.3.3 Joint ventures are not acceptable in response to this RFP. If multiple PROPOSERS are proposing to jointly perform the project, the Proposal must be submitted in the form of a Prime Contractor/Subcontractor(s) arrangement.

3.3.4 PROPOSER must submit one (1) notarized signed hardcopy Proposal and three (3) softcopy Proposals on a single USB flash drive, as detailed in this section to the AUTHORITY in a sealed package and clearly marked:

“Proposal in Response to ASA.RFP.07012023 - Do Not Open”
Package must also be labeled with Proposer’s name, address, and point of contact information.

Proposals not signed and notarized may be rejected. By submitting a Proposal, the PROPOSER agrees the AUTHORITY may copy the Proposal for purposes of facilitating the evaluation or to respond to requests for public records.

The hardcopy Proposal must be:

3.3.4.1 One (1) complete signed and notarized hardcopy bound Proposal.

The softcopy USB flash drive of the Proposal must contain the following:

3.3.4.2 One (1) complete copy of the Proposal in searchable Adobe Acrobat PDF format.

3.3.4.3 One (1) complete copy of the Proposal in Microsoft Word 2013 or later format.

3.3.4.4 One (1) redacted copy of the Proposal in Microsoft Word 2013 or later format with all material marked “Confidential” removed as described in this section.

3.3.4.5 Each attachment provided by PROPOSER must also be in Microsoft Word 2013 or later format, Microsoft Excel 2013 or later, or Acrobat PDF format.

3.4 Completeness of Proposals

PROPOSER must provide written confirmation that they comply with the provisions of this RFP, without exception, and accept all general terms and conditions set out in Section 9. If PROPOSER fails to provide such confirmation, the AUTHORITY, at its sole discretion, may determine the proposal to be non-compliant and the proposal may be rejected.

Any Proposal that does not address all requirements of this RFP and provide all required documentation may be deemed as incomplete and the Proposal may be rejected.

3.5 Required Review and Waiver of Objections by Proposer

PROPOSER should carefully review this RFP and all attachments for comments, questions, defects, objections, or any other matter requiring clarification or correction (collectively called “Questions”). Questions concerning the RFP must be submitted via e-mail directly to the RFP Coordinator as defined in this section and must be received by the RFP Coordinator no later than the Deadline for Written Comments and Questions specified in Section 2, RFP Schedule of Events. PROPOSERS are encouraged to
submit any PROPOSER identified RFP errors and/or omissions made by the AUTHORITY as soon as possible. This will allow issuance of any necessary amendments to the RFP in a timely manner.

Protests based on any objection will not be considered if the objection has not been brought to the attention of the RFP Coordinator, in writing by email, by the time of the Mandatory Proposers Conference as specified in Section 2, RFP Schedule of Events.

3.6 Proposal Preparation and Presentation Costs

The AUTHORITY will not pay any costs associated with the PROPOSER’S preparation, submittal, or presentation of any Proposal.

3.7 Proposal Withdrawal

PROPOSERS may withdraw a submitted Proposal prior to the deadline for submitting Proposals, as specified in Section 2, RFP Schedule of Events. To withdraw a Proposal, the PROPOSER must submit a written request, signed by a PROPOSER representative authorized to sign the resulting Contract, to the RFP Coordinator. After withdrawing a previously submitted Proposal, the PROPOSER may submit another Proposal at any time up to the Deadline for Submitting a Proposal as specified in Section 2, RFP Schedule of Events.

3.8 Proposal Amendment

The AUTHORITY will not accept any amendments, revisions, or alterations to a Proposal.

3.9 Proposal Errors

The PROPOSER is liable for all errors or omissions contained in their Proposal. PROPOSERS will not be allowed to alter Proposal documents. If a PROPOSER needs to change a previously submitted Proposal, the PROPOSER must withdraw the entire Proposal and may submit the corrected Proposal before the Deadline for Submitting a Proposal as specified in Section 2, RFP Schedule of Events.

3.10 Proposal Compliance and Clarifications

All Proposals will be initially reviewed by the RFP Coordinator to determine compliance with requirements specified in the RFP. The AUTHORITY reserves the right, at its discretion, to request clarification of PROPOSER responses to ensure full understanding of the Proposal and to enable a fair evaluation of the Proposal. The AUTHORITY will not be liable for any costs associated with such clarification. Clarification will be limited to specific sections of the Proposal as identified by the RFP Coordinator. The RFP Coordinator will contact the PROPOSER to solicit clarification of responses. The
PROPOSER must provide such clarification in writing to the RFP Coordinator within the specified time frame and will be subsequently provided to the Evaluation Committee and the AUTHORITY for consideration.

3.11 Prohibition of Proposer Terms and Conditions

A PROPOSER must not include the PROPOSER’S own contract terms and conditions in response to this RFP.

3.12 Right to Refuse Personnel

The AUTHORITY reserves the right to reject at its discretion, any personnel provided by the selected PROPOSER.

3.13 Proposal of Alternate Services

A Proposal of alternate services (i.e., a Proposal that offers something different from that requested by the RFP) may be considered incomplete and rejected.

3.14 Independent Price Determination

A Proposal will be disqualified and rejected by the AUTHORITY if the price in the Proposal was not arrived at independently without collusion, consultation, communication, or agreement as to any matter relating to such prices with any other PROPOSER, an AUTHORITY employee, or any competitor. Should such prohibited action be discovered any time during the term of the Contract, such action shall be considered a material breach and grounds for Contract termination.

3.15 Conflict of Interest and Restrictions

3.15.1 By submitting a Proposal, the PROPOSER certifies that no amount will be paid directly or indirectly to an employee or official of the AUTHORITY as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the PROPOSER in connection with the procurement under this RFP.

Notwithstanding this restriction, nothing in this RFP shall be construed to prohibit a state agency or other governmental entity from making a Proposal, being considered for award, or being awarded a Contract under this RFP.

3.15.2 The AUTHORITY will not contract with an individual who is, or within the past twenty-four months has been, an employee of the State of Alabama (Section 36-25-13, Code of Alabama, 1975). An
individual shall be deemed a State employee until such time as all salary, termination pay, and compensation representing annual or compensatory leave have been paid by the State. A Contract with a company in which controlling interest is held by a State employee shall be considered a Contract with said individual and shall be prohibited.

3.16 Rights Reserved

3.16.1 Any Proposal received which does not meet the requirements of this RFP may be rejected. The PROPOSER must comply with all terms of this RFP and all applicable State laws and regulations. The AUTHORITY may reject any Proposal that does not comply with all terms, conditions, and performance requirements of this RFP. The AUTHORITY, at its discretion, also reserves the right to waive any minor irregularity in an otherwise valid Proposal which would not jeopardize the overall program.

3.16.2 PROPOSERS shall not attempt to restrict the rights of the AUTHORITY or otherwise qualify their Proposals. If a PROPOSER does so, the Proposal may be rejected.

3.16.3 The AUTHORITY reserves the right to change its decision with respect to selection, and to select another Proposal and negotiate with any PROPOSER whose Proposal is within the competitive range with respect to technical plan and cost.

3.16.4 The AUTHORITY reserves the right, at its sole discretion, to waive variances in responses to the Technical Requirements provided such action is in the best interest of the AUTHORITY. Where the AUTHORITY waives variances in Proposals, such waiver does not modify the RFP requirements or excuse the PROPOSER from full compliance with the RFP. Notwithstanding any variance in the Proposal, the AUTHORITY will hold any PROPOSER to strict compliance with the RFP.

3.17 Disclosure of Proposal Contents

Proposals and supporting documents are kept confidential until the evaluation process is complete, and a PROPOSER has been selected. The PROPOSER should be aware that any information in a Proposal may be subject to disclosure and/or reproduction under Alabama law. Designation as proprietary or confidential may not protect any materials included within the Proposal from disclosure if required by law. The PROPOSER should mark or otherwise designate any material that it feels is proprietary or otherwise confidential by labeling the page as “CONFIDENTIAL” on the bottom of the page. The PROPOSER must also state any legal authority as to why that material should not be subject to public disclosure under Alabama Open Records Law. The AUTHORITY assumes no liability for the disclosure of information provided by the PROPOSER as confidential.

The defense of any claim by a third-party seeking information identified as confidential by a PROPOSER will be the responsibility of the PROPOSER asserting confidentiality. The PROPOSER shall hold the
AUTHORITY harmless for any claim arising against the AUTHORITY and further agrees to indemnify the AUTHORITY for any expense incurred in defending such a claim.
4 PROPOSER QUALIFICATIONS AND EXPERIENCE

The response to the Proposer Qualifications and Experience Section must be divided into the following:

- Table of Contents
- Proposer’s Mandatory Requirements
- Proposer’s General Qualifications and Experience
- Financial Stability
- References
- Staffing

4.1 Subcontractors

The proposal must identify all subcontractors, if any, who are needed to satisfy the requirements of the RFP. The percentage of work, as measured by percentage of total Proposal price, to be performed by the Prime Contractor must be provided. Subcontracted work must not collectively exceed thirty percent (30%) of the total Proposal Price. The AUTHORITY recognizes the fact that potential PROPOSERS have different business models for the delivery of support services.

PROPOSERS may propose the use of Transport Subcontractors for the performance of connecting AUTHORITY clients to Alabama Research and Education Network in accordance with the terms and conditions of the Contract and not be considered part of the thirty percent (30%) mentioned earlier.

4.2 Contract Residence Requirements

The PROPOSER must acknowledge compliance with the requirement that the Program Director and all other Key positions as identified in the organizational chart are required to have office hours to be approved by the AUTHORITY and at 686 Discovery Drive, Huntsville, Alabama 35806.

4.3 Mandatory Requirements Compliance

The PROPOSER must acknowledge compliance with the Mandatory Requirements as set out in Section 4.4 Proposer’s Mandatory Requirements. If the PROPOSER cannot comply with one or more of the listed Mandatory Requirements, the AUTHORITY may deem the Proposal as non-compliant and may reject it.
4.4 Proposer’s Mandatory Requirements

The PROPOSER must reference and respond to the following subsections in sequence and include corresponding documentation as required.

4.4.1 The PROPOSER must provide written confirmation that they shall comply with the provisions of this RFP, without exceptions. If the PROPOSER fails to provide such confirmation, the Proposal may be rejected.

4.4.2 The PROPOSER must complete and submit the 10.4.1 Certification of Compliance included in the RFP attachments to comply with the listed conditions.

4.4.3 Section 41-16-82, et seq., Code of Alabama 1975, requires an Alabama Disclosure Statement be completed and filed with all proposals, bids, contracts, or grant proposals to the State of Alabama exceeding $5,000.

The Alabama Disclosure Statement must be completed by the PROPOSER as well as any subcontractors (excluding Transport Subcontractors) and must be submitted with the Proposal and attached to the Proposer Qualifications and Experience Section. See Alabama Department of Examiners of Public Accounts website for disclosure statement.

4.5 Proposer’s General Qualifications and Experience

4.5.1 General Qualifications and Experience

To evidence the PROPOSER’S experience in delivering services similar to those required by this RFP, the General Qualifications and Experience must reference and respond to the following subsections and include supporting documentation as required.

The PROPOSER must provide the following:

4.5.1.1 A descriptive statement indicating the PROPOSER’S credentials to deliver the services sought under this RFP;

4.5.1.2 A description of the PROPOSER’S background and organizational history;

4.5.1.3 Number of years in business;

4.5.1.4 A statement of how long the PROPOSER has been performing the services required by this RFP;
4.5.1.5 Location of personnel which will be used to perform services procured under this RFP;

4.5.1.6 The number of employees and a description of the client base as it relates to the services solicited under this RFP;

4.5.1.7 Whether there have been any mergers, acquisitions, sales, or reorganization of the PROPOSER company within the last five (5) years (and if so, an explanation providing relevant details);

4.5.1.8 Form or type of business entity;

4.5.1.9 A statement as to whether any PROPOSER employees to be assigned to this project have been convicted of, pled guilty to, or pled nolo contendere to any felony or have been suspended or disbarred from the Schools and Libraries Program (E-rate); and if so, an explanation providing relevant details;

4.5.1.10 A statement from the PROPOSER’S legal counsel as to whether there is pending or current litigation which would impair the PROPOSER’S performance in a Contract awarded under this RFP;

4.5.1.11 A statement as to whether, in the last ten (10) years, the PROPOSER has filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors; and if so, an explanation providing relevant details;

4.5.1.12 A statement as to whether the PROPOSER has ever been disqualified from competition for government contracts because of unsatisfactory performance; and if so, an explanation providing relevant details;

4.5.1.13 A detailed statement of relevant Service Provider and Enterprise Networking, High Performance Computing, Web Applications Development, Security Operations and Programming experience in the public sector within the last ten (10) years from PROPOSER and Non-Transport Subcontractors. In this Section, the PROPOSER must also submit documents describing the PROPOSER and Non-Transport Subcontractor’s experience;

4.5.1.14 A description of its experience with the Universal Service Administrative Company (USAC), E-rate Program, and other USAC programs.

4.5.2 Non-Transport Subcontractor General Qualifications and Experience

The PROPOSER shall be responsible for ensuring the timeliness and quality of all work performed by Non-Transport Subcontractors. If no Non-Transport Subcontractors is proposed, the PROPOSER must so indicate in its response to this Section.
For each proposed Non-Transport Subcontractor, the **PROPOSER** must provide the following:

4.5.2.1 Non-Transport Subcontractor’s name, address, and contact information;

4.5.2.2 Percentage of total proposal and task-specific work the Non-Transport Subcontractor will be providing based upon cost;

4.5.2.3 Written statement signed by the Non-Transport Subcontractor that clearly verifies that the Non-Transport Subcontractor is able and committed to render the services required;

4.5.2.4 A descriptive statement indicating the Non-Transport Subcontractor’s credentials to deliver the services under this RFP;

4.5.2.5 A description of the Non-Transport Subcontractor’s background and organizational history;

4.5.2.6 Non-Transport Subcontractor’s number of years in business;

4.5.2.7 A statement of how long the Non-Transport Subcontractor has been performing the services required under this RFP;

4.5.2.8 Non-Transport Subcontractor’s location of offices and personnel which will be used to perform services procured under this RFP;

4.5.2.9 Non-Transport Subcontractor’s number of employees and a description of the client base as it relates to the services solicited under this RFP;

4.5.2.10 Whether there have been any mergers, acquisitions, sales, or reorganization of the Non-Transport Subcontractor’s company within the last five (5) years (and if so, an explanation providing relevant details);

4.5.2.11 Non-Transport Subcontractor’s form or type of business entity;

4.5.2.12 A statement as to whether any Non-Transport Subcontractor employees to be assigned to this project have been convicted of, pled guilty to, or pled nolo contendere to any felony or have been suspended or disbarred from the Schools and Libraries Program (E-rate); and if so, an explanation providing relevant details;

4.5.2.13 A statement as to whether there is any pending litigation against the Non-Transport Subcontractor; and if such litigation exists, attach an opinion of counsel as to whether the pending
litigation will impair the Non-Transport Subcontractor’s performance in a Contract awarded under this RFP;

4.5.2.14 A statement as to whether, in the last ten (10) years, the Non-Transport Subcontractor has filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors; and if so, an explanation providing relevant details;

4.5.2.15 A detailed statement of relevant Service Provider Network and Enterprise Networking, High Performance Computing, Web Applications Development, Security Operations, and Programming experience in the public and private sector within the last ten (10) years. In this Section, the Non-Transport Subcontractor must also provide sample documents describing the Non-Transport Subcontractor’s experience;

4.5.2.16 Non-Transport Subcontractor’s description of their experience with the Universal Service Administrative Company (USAC), E-rate Program, and other USAC programs.

4.6 Financial Stability

The PROPOSER must provide the following financial responsibility and stability documentation:

4.6.1 A letter signed by an Executive Member of the PROPOSER’S organization such as the Chief Executive Officer or Chief Financial Officer or by an officer empowered to obligate the PROPOSER to the provisions of this RFP and any Contract negotiated and awarded pursuant to it, attesting that the information provided pursuant to this Section is to his/her knowledge correct and complete.

4.6.2 Audited financial statements of the PROPOSER prepared in conformity with Generally Accepted Accounting Principles of the United States for three (3) years to include 2019, 2020 and 2021:

- Opinion of the financial statements
- Balance sheets
- Income statements
- Cash flow statements
- Changes in shareholders’ equity statements
- All notes pertaining to such financial statements

Due to the length of audited financial statements, the AUTHORITY will accept a softcopy as a response to this Section from the PROPOSER that must conform with Section 3 of the RFP. The PROPOSER must clearly identify the file name and location on the submitted softcopy referenced in their hardcopy response to this Section.
4.6.3 The **PROPOSER** must submit a summary of the organization’s Balance Sheet and Income Statement on Section 10.4.2 - Proposer Financial Resources Profile included in the attachments for this RFP. The form must be signed by the individual in the organization defined in Section 4.6.1.

4.6.4 The **PROPOSER** must submit a copy of the **PROPOSER’S** most recent certificate of insurance indicating liability insurance and the stated amount.

4.6.5 The **PROPOSER** must submit documentation of the most recent credit rating determined by an accredited rating agency, such as, Standard and Poor’s, etc.

4.6.6 The **PROPOSER** must submit the latest copy of all required lender reporting if applicable. This should include current lender covenant submissions along with calculations. Data to include current borrowing base submission along with current loan availability.

4.6.7 The **PROPOSER** must submit a statement signed by the Chief Executive Officer or Chief Financial Officer or by an officer empowered to obligate the **PROPOSER** to the provisions of this RFP and any Contract negotiated and awarded pursuant to the RFP stating that **PROPOSER** has no significant unrecorded contingent liabilities that could affect the company’s financial viability. Contingent liabilities are considered significant if, in the aggregate they total 10% or more of **PROPOSER’S** assets. If significant contingent liabilities exist, details must be provided concerning the nature and amount of such contingent liabilities.

4.6.8 The **PROPOSER** must submit a valid Service Provider Identification Number (SPIN) and a valid Federal Communications Commission Registration Number (FCCRN) reflecting a green light status.

4.6.9 For subcontractors providing twenty percent (20%) or more of the scope of service, the Subcontractor is required to submit the same financial stability information as the **PROPOSER**.

4.7 References

4.7.1 Proposer References

The **PROPOSER** must provide three (3) references of similar scope of service(s) for which the **PROPOSER** served as the Prime Contractor or Subcontractor within the last ten (10) years. These references may be from the private, non-profit, or government sector. For each reference, the **PROPOSER** must include:

4.7.1.1 Reference name, address, telephone number, email address, primary contact and description of services provided that exhibits qualifications and experience necessary for fulfilment of the obligations of the proposal.

4.7.1.2 Label the reference responses as follows: “**PROPOSER** Reference #1,” etc.
4.7.2 Subcontractor References

For each Subcontractor proposed, the PROPOSER must provide three (3) references of similar scope of service(s) for which the Subcontractor served as the Prime Contractor or Subcontractor within the last ten (10) years. These references may be from the private, non-profit, or government sector. For each reference, the PROPOSER must include:

4.7.2.1 Reference name, address, telephone number, email address, primary contact and description of services provided that exhibits qualifications and experience necessary for fulfillment of the obligations of the proposal.

4.7.2.2 Label the reference responses as follows: “Subcontractor Reference #1,” etc.

4.8 Staffing

The PROPOSER must provide the following information for the staff to be assigned to the AUTHORITY for the duration of the Contract term awarded under this RFP.

4.8.1 Project Organization Chart

The PROPOSER must provide a project organization chart that identifies each Key Position and number of non-key positions under each Key Position. The AUTHORITY reserves the right to interview and approve the individuals assigned to those positions, as well as to approve any later reassignment or replacement, although such approval will not be unreasonably withheld. Any key position reassignment or replacement must be of equal or higher skills, knowledge, and abilities than the personnel originally proposed.

4.8.2 Key Positions

At a minimum, the Key Positions must include the roles of a Program Director, Network Operations Manager, Senior Network Engineer (Planning and Design), Senior Network Engineer (Operations), Senior HPC Application Analyst (Ph.D. credentials), Senior HPC Systems Analyst, Applications Development Manager, Senior Applications Developer, Systems Admin Manager, Security Operations Manager, Cybersecurity Analyst, Service Delivery Manager, Help Desk Coordinator, Business Operations Manager, Senior E-rate Specialist.

Senior technical positions will also be considered Key positions and any other positions where the sudden departure of person in that position would affect the team’s ability to stay on schedule.
Though the PROPOSER may use different position titles, the PROPOSER must clearly specify which is the Program Director and the Services Lead (or clearly described equivalent). The PROPOSER must affirm that their team will be able to meet with the AUTHORITY either in person or by teleconference through the duration of a Contract awarded under this RFP.

For each position designated as a Key Position, the PROPOSER must provide:

4.8.2.1 Name and title of the individual proposed for that position;

4.8.2.2 Description of project role and responsibilities;

4.8.2.3 Completed Key Position Resume Sheet for each individual as provided in the 10.4.3 - Key Position Resume Sheet included in the attachments for this RFP. All Key Position Resume Sheets must be attached to the Proposer Qualification and Experience Section; and a current full resume must be attached to the completed Key Position Resume Sheet. Key positions are described in the 10.4.4 - Professional Services Job Descriptions included within the attachments for this RFP. Experience may be substituted for education; it is the responsibility of the PROPOSER to demonstrate how the experience qualifies.

4.8.3 Proposed Staffing

The PROPOSER shall have staff exclusively dedicated to the AUTHORITY and shall list all staff required to support the base level contract as outlined in the requirements of the RFP. The PROPOSER is expected to size the staff to adequately support the requirements as demanded by the AUTHORITY’S program. Additions or deletions to the PROPOSER staff shall be subject to approval by the AUTHORITY prior to any changes. The AUTHORITY will not pay additional personnel salary expenses for work performed by support personnel already allocated to the program.

4.8.4 Staffing Time

The PROPOSER must indicate their ability to start work after a Contract is awarded and provide assurances as to the availability of staff for Key Positions within 30 days. The PROPOSER must also indicate its timeframe for filling Non-Key Positions.

4.8.5 Employment Certification

By submission of this information, the PROPOSER is certifying that the individuals submitted are currently employed within the PROPOSER organization or have been contacted by the PROPOSER and have agreed to join the PROPOSER organization upon Contract award. It is the responsibility of the PROPOSER to have a background check completed on all individuals employed for this RFP. The
AUTHORITY reserves the right to contact and/or interview submitted personnel prior to Contract award, and the AUTHORITY reserves the right to approve or reject such personnel.

5 TECHNICAL REQUIREMENTS

5.1 Alabama Research and Education Network (AREN)

The Alabama Research and Education Network provides Managed Internet Access and associated network services to schools, colleges, universities, public libraries, state and local agencies, and research entities throughout the State of Alabama.

The AREN section is broken down as follows:

- AREN Services and Features – The services AREN provides.
- AREN Service Platform – The central network that connects clients to services.
- Network Operations – Supporting AREN.
- General Requirements – Requirements that impact all AREN services.
- E-rate Funding – Specific detail regarding E-rate funding requirements.

5.1.1 AREN Services and Features

5.1.1.1 Managed Internet Access Service

Managed Internet Access (MIA) Service provides the AUTHORITY'S clients with IP access to the Internet via the AREN Service Platform defined in Section 5.1.2 below.

The following subsections of 5.1.1.1 list features and capabilities required of the AREN MIA Service.

The PROPOSER must respond to all subsections of 5.1.1.1 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.1.1.1.1 Ethernet Transport

The AUTHORITY prefers that MIA Services be provided using Ethernet as the transport technology. The PROPOSER must explain and justify in the Understanding and Approach section below any MIA services that will be provided with a different transport technology.
5.1.1.1.2 Dedicated/Symmetric Access

For MIA Service, the PROPOSER must provide dedicated and symmetric bandwidth from each client to the AREN Service Platform. Dedicated bandwidth means the bandwidth is always available, and not dependent upon the current utilization of any other client or service.

Any oversubscription of bandwidth must be explained, in detail, in response to the Understanding and Approach section below. Where oversubscription is not detailed, it is understood by the AUTHORITY that all services are capable of being used to maximum capacity, simultaneously, at any time.

5.1.1.1.3 Diversity Requirements

AREN services for one client must not be dependent upon MIA Service for any another client.

5.1.1.1.4 Performance Requirements

The PROPOSER’S MIA Service must meet or exceed the following performance metrics:

- **Data Delivery** – 99.95% of data must reach its intended destination or leave the AREN Service Platform without error or loss.

- **Round-Trip Latency** – Round-Trip Latency between Client Premise Equipment and any AREN Service Platform infrastructure must be less than 20ms.

- **Service Availability** - As specified in Section 5.1.4.1, the average monthly service availability for each AREN-related service must be greater than or equal to 99.9%.

The PROPOSER’S response to the Understanding and Approach section below must detail the performance capability of its proposed solution; including detail on how the above metrics will be measured and reported to the AUTHORITY. Any special cases where these performance requirements cannot be met (very rare) must also be detailed in the Understanding and Approach section.

The PROPOSER must include any SLAs that it receives from its Transport Subcontractors when responding to the Understanding and Approach section regarding performance requirements.

5.1.1.1.5 Client Premise Equipment

The PROPOSER’S MIA Service must include a PROPOSER-managed device at the MIA Service client’s location. The type of device and deployment design must permit the PROPOSER to effectively troubleshoot service issues and quickly determine if they are caused by the client, the Transport Subcontractor, or the PROPOSER.
5.1.1.6 Network Design and Configuration

The proposed MIA Services infrastructure must be capable of supporting the “Level/Contract Year 5 Bandwidth” specified for each MIA client identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs.

The PROPOSER must design, deploy, manage, and maintain routing configuration to enable all public routable prefixes assigned to the client to be reachable from all AREN Services, including the Internet.

IP prefixes have already been assigned to each client and these assignments must be accommodated by the PROPOSER’S routing design.

5.1.1.7 Direct Internet Access

In very rare cases, it may be necessary and/or highly cost-effective to directly connect an MIA Service client directly to an Internet Service Provider without using the AREN Service Platform.

The PROPOSER must explain the circumstances and cost analysis of any such scenarios if they are submitted in response to this RFP. This explanation must detail any deviations from the standard MIA Service that result from the use of Direct Internet Access.

MIA Service to E-rate eligible clients must provide Content Filtering. Therefore, if the PROPOSER utilizes Direct Internet Access to service an E-rate eligible client, the PROPOSER must document how Content Filtering Services will be provided to that client. The Content Filtering Services provided must meet the same requirements as listed in Section 5.1.1.6.1 Content Filtering.

5.1.1.8 Client List

The PROPOSER must provide MIA Services to the MIA clients identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs.

5.1.1.9 Understanding And Approach

The PROPOSER must respond to this section with a detailed description of its AREN MIA Service. This description must include, at a minimum, the following information:

- Description of connection diversity offered to MIA Service clients and how this meets or exceeds the requirements of Section 5.1.1.3. During proposal evaluation, preference will be given to responses that show more path diversity without greatly increased cost.
- Completed Cost Proposal Table 5.1c AREN Internet & WAN Costs, identifying the Transport Subcontractor used and describing the solution to connect each client to the AREN Service Platform.
- Description of PROPOSER’S approach and detail that demonstrates PROPOSER’S understanding of how to design, deploy, manage, and maintain a solution to meet the stated requirements.
5.1.1.2 Managed WAN Service

Managed WAN (MW) Service provides the AUTHORITY'S clients a direct and managed network connection between two or more of that client’s locations. This service is typically used to aggregate network traffic from multiple locations to a single point where MIA Service is provided.

Currently, most MW services are configured in a hub-and-spoke design. The ‘hub’ is typically the client’s location where MIA Service is provided, and each ‘spoke’ is a MW Service location.

The following subsections of 5.1.1.2 list features and capabilities required of the MW Service.

As a policy of the AUTHORITY, MW Service is only provided to clients who also receive MIA Service.

The PROPOSER must respond to all subsections of 5.1.1.2 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.1.1.2.1 Ethernet Transport

The AUTHORITY prefers that MW Services be provided using Ethernet as the transport technology. The PROPOSER must explain and justify in the Understanding and Approach section below any MW services that will be provided with a different transport technology.

5.1.1.2.2 Dedicated/Symmetric Access

For MW Service, the PROPOSER must provide dedicated and symmetric bandwidth between the two locations being connected. Dedicated bandwidth means the bandwidth is always available, and not dependent upon the current utilization of any other client or service.

Any oversubscription of bandwidth must be explained in detail in response to the Understanding and Approach section below. Where oversubscription is not detailed, it is understood by the AUTHORITY that all services are capable of being used to maximum capacity, simultaneously, at any time.

5.1.1.2.3 Diversity Requirements

For the purposes of MW Service, failure of any single telecommunications line must not impact more than one WAN location, unless the failure is at the client’s hub location.

PROPOSER must explain cases where diversity is not feasible or cost effective. These should be very rare.
5.1.1.2.4 Performance Requirements

The PROPOSER’S MW Service must meet or exceed the following performance metrics:

- **Data Delivery** – 99.95% of data must reach its intended destination or enter the AREN Service Platform without error or loss.

- **Round-Trip Latency** – Round-Trip Latency between any two locations in a client’s Managed WAN Service must not exceed 20ms.

- **Service Availability** - As specified in Section 5.1.4.1, the average monthly service availability for each AREN-related service must be greater than or equal to 99.9%.

The PROPOSER’S response to the Understanding and Approach section below must detail the performance capability of its proposed solution; including detail on how the above metrics will be measured and reported to the AUTHORITY. Any special cases where these performance requirements cannot be met (very rare) must also be detailed in the Understanding and Approach section.

The PROPOSER must include any SLAs that it receives from its Transport Subcontractors when responding to the Understanding and Approach section regarding performance requirements.

5.1.1.2.5 Client Premise Equipment

The PROPOSER’S MW Service must include a PROPOSER-managed device at the clients’ WAN locations that require MW Service. The type of device and deployment design must permit the PROPOSER to effectively troubleshoot service issues and quickly determine if they are caused by the client, the Transport Subcontractor, or the PROPOSER.

5.1.1.2.6 Network Design and Configuration

The proposed MW Services infrastructure must support the “Level/Contract Year 5 Bandwidth” specified for each WAN Site, including any infrastructure required at the WAN Core site, identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs.

The PROPOSER must design, configure, and maintain routing configurations to enable all prefixes at each client WAN location to be reachable from the MIA Service location as well as from any other location in that client’s MW Service.

For E-rate eligible clients, the PROPOSER must implement a logical and/or physical hub-and-spoke design. The PROPOSER must implement a design that forbids all spoke locations to speak directly to each other without first routing through the hub location. This design is required to maintain E-rate eligibility as an Internet Access Service.
E-rate eligible clients are identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs which also identifies clients that require the MW Service.

5.1.1.2.7 Client List
The PROPOSER must provide MW Services as described in Cost Proposal Table 5.1c AREN Internet & WAN Costs.

5.1.1.2.8 Understanding And Approach
The PROPOSER must respond to this section with a detailed description of its AREN MW Service. This description must include, at a minimum, the following information:

- Completed Cost Proposal Table 5.1c AREN Internet & WAN Costs, identifying the Transport Subcontractor(s) used and describing the solution to connect each location to the client’s hub location.
- Description of PROPOSER’S approach and detail that demonstrates PROPOSER’S understanding of how to design, deploy, manage, and maintain a solution to meet the stated requirements.

5.1.1.3 Additional Diversity Managed Internet Access and WAN Services
This section describes specific requirements that two clients have for additional diversity. This diversity incorporates both Managed Internet and Managed WAN Services.

The PROPOSER must respond to all subsections of 5.1.1.3 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.1.1.3.1 Clients With Specific Needs

5.1.1.3.1.1 Coastal Alabama Community College
Refer to Cost Proposal Table 5.1c AREN Internet & WAN Costs to see the Internet and WAN connection requirements for Coastal Alabama Community College (Coastal).

The proposed MIA and MW Services infrastructure must be capable of supporting the “Level/Contract Year 5 Bandwidth” specified for Coastal and all its sites identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs.
5.1.1.3.1.2 Routing Protocol

Coastal requires that a dynamic routing protocol be configured and maintained so that traffic in the Coastal network can take the preferred path to its destination and automatically failover to another path if a network failure occurs. The routing protocol should also communicate with the AREN Service Platform so that it is always aware of the preferred path to Coastal.

5.1.1.3.1.3 Core Redundancy

Coastal requires that the three core sites (Bay Minette, Monroeville, and Brewton) be connected such that a failure of a single Transport Subcontractor does not isolate any Coastal core site from AREN.

5.1.1.3.1.4 WAN Redundancy

Coastal requires that WAN connections to its campuses in Thomasville and Fairhope be designed such that a failure of a single Transport Subcontractor does not isolate either site from reaching at least one of the three Coastal core sites.

The two connections into the Atmore Campus must not be used to transit traffic between Monroeville and Brewton. They are only to be used as diverse connectivity for traffic to/from the Atmore Campus.

5.1.1.3.1.4.1 Other WAN Sites

All other Coastal WAN sites detailed in Cost Proposal Table 5.1c AREN Internet & WAN Costs must be connected to a single Coastal core site (Bay Minette, Monroeville, or Brewton) with the bandwidth specified.

5.1.1.3.1.4.2 Shelton State Community College

Refer to Cost Proposal Table 5.1c AREN Internet & WAN Costs to see the Internet and WAN connection requirements for Shelton State Community College (Shelton State).

The proposed MIA and MW Services infrastructure must be capable of supporting the “Level/Contract Year 5 Bandwidth” specified for Shelton State and all its sites identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs.

Shelton State requires that a dynamic routing protocol be configured and maintained so that traffic to/from AREN is not interrupted if one of the two MIA circuits experiences a failure.

Shelton State requires Transport Subcontractor diversity for the MIA connections to their two campuses. The Transport Subcontractor used for one campus MIA service must not be used for MIA service to the other campus. Transport Subcontractor diversity is NOT required for the WAN connection between the two campuses.
5.1.1.3.1.4.3 Failover Internet Access Service

Failover Internet Access Service provides a second MIA connection between the client and the AREN Service Platform using a different Transport Subcontractor from the first MIA connection, where possible.

The PROPOSER must provide Failover Internet Service to all clients as identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs, refer to the “Service Type” column.

5.1.1.3.2 Disaster Recovery Internet Access Services

Disaster Recovery Internet Access Service is the same as Failover Internet Access Service, but the second connection is delivered at a different AREN location, usually to client equipment located there.

The PROPOSER must provide Disaster Recovery Internet Access Service to all clients identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs, refer to the “Service Type” column.

5.1.1.3.3 Shared Internet Access Service

Shared Internet Access Service provides more than one network hand-off to a single client, using one Managed Internet Access connection (and associated hardware). For example, a client may require 100Mbps of Internet, to be shared by production and lab networks. Any or all hand-offs may be configured to use up to the full MIA bandwidth.

The PROPOSER must provide Shared Internet Access Service to all clients as identified in Cost Proposal Table 5.1c AREN Internet & WAN Costs, refer to the “Service Type” column, and also configure bandwidth constraints on the separate networks as detailed.

5.1.1.3.4 Performance Requirements

Additional Diversity Managed Internet Access and WAN Services must meet or exceed the performance requirements for AREN Managed Internet Access Service and AREN Managed WAN Service, respectively.

The PROPOSER’S response to the Understanding and Approach section (below) must detail the performance capability of its proposed solution; including detail on how service level metrics will be measured and reported to the AUTHORITY. Any special cases where these performance requirements cannot be met (very rare) must also be detailed in the Understanding and Approach section.
5.1.1.3.5 Understanding and Approach

The PROPOSER must respond to this section with a detailed solution that it will implement to meet the requirements of this section. This description must include, at a minimum, the following information:

- Description of connection diversity offered to clients and how this meets or exceeds the requirements of Section 5.1.1.1.3.
- Completed Cost Proposal Table 5.1c AREN Internet & WAN Costs identifying the Transport Subcontractor(s) used and describing the solution to connect each location to the AREN Service Platform, or the client’s hub location(s).
- Description of PROPOSER’S approach and detail that demonstrates PROPOSER’S understanding of how to design, deploy, manage, and maintain a solution to meet the stated requirements.

5.1.1.4 Managed Firewall Service

Managed Firewall Service provides the AUTHORITY’S clients with a firewall configured to meet each client’s individual security requirements regarding managing network access to/from that client’s network.

The following subsections of 5.1.1.4 list features and capabilities required of the Managed Firewall Service.

As a policy of the AUTHORITY, Managed Firewall Service is only provided to clients that also receive MIA Service.

The PROPOSER must respond to all subsections of 5.1.1.4 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

The proposed Managed Firewall Service infrastructure for each client must support the “Level/Contract Year 5 Bandwidth” specified for the client’s corresponding MIA Service in Cost Proposal Table 5.1c AREN Internet & WAN Costs.

5.1.1.4.1 Performance Requirements

The PROPOSER’S Managed Firewall Services must meet or exceed Performance Requirements specified for MIA Service in Section 5.1.1.1.4.

5.1.1.4.2 Basic Firewall Service

Basic Firewall Services must include a firewall device located at the client premise and the following:
• IP and Routing configuration to enable the firewall to operate on the network.
• Consulting with the client to design and configure Security Policy and NAT Policy rules as the client requires.
• Guidance to assist the client in following security best practices, related to the configuration and maintenance of the firewall, for their network.
• Five physical interfaces, each supporting IEEE 802.1q VLAN tagging as needed to provide sufficient segmentation as required by the client.
• Bandwidth throughput capability as described in Cost Proposal Table 5.1d AREN Other Services Costs. The firewall must be capable of this throughput while providing all Managed Firewall Services required by the client (e.g., VPN, threat detection, etc.)
• Site-to-Site Encrypted VPN Service (see next section)

The PROPOSER must provide Managed Basic Firewall Service to all clients as identified in Reference Table 10.5.1 AREN Services List.

5.1.1.4.2.1 Site-to-Site Encrypted VPN Service

Site-to-Site Encrypted VPN Services utilize IPSec VPNs to create an encrypted path between the client firewall and another VPN-device at a remote location. The remote device may or may not be managed by the PROPOSER.

The PROPOSER’S Basic Firewall Service must support Site-to-Site Encrypted VPN Services.

The PROPOSER must configure Site-to-Site Encrypted VPN connections as requested by the AUTHORITY or its clients, throughout the duration of the Contract.

In cases where the remote device is not managed by the PROPOSER, the PROPOSER must work with the third-party responsible for managing the device to configure and maintain the service. If the third-party’s solution does not support encryption/privacy algorithms required by this RFP, or if it is incompatible with the PROPOSER’S solution, the PROPOSER must notify the AUTHORITY before service is provided.

At a minimum, the PROPOSER solution must support IPSec VPN connections to the following hardware PROPOSERs that exist on the network today:

• Cisco ASA
• Juniper SRX
• Palo Alto

5.1.1.4.3 Next-Generation Firewall Service

Next-Generation Firewall Service extends Basic Firewall Service to add the following features:

• Integration with external user directory to identify users and create policy based on users.
• Integration with externally maintained threat identification database(s) to identify and block traffic associated with known threats.
• Integration with externally maintained database(s) that identify and block access to Internet destinations known to provide malware or other malicious behavior.
• Geofencing Security Policies
• The ability to identify and govern traffic by Application, independent of what transport layer port is used.

The PROPOSER must provide Managed Next-Generation Firewall Services to all clients as identified in Reference Table 10.5.1 AREN Services List. Managed Next-Generation Firewall Services infrastructure must be capable of supporting “Level/Contract Year 5 Bandwidth” throughput as specified in Cost Proposal Table 5.1d AREN Other Services Costs.

The PROPOSER must share Next-Generation Firewall Service details with the AREN SOC for analysis and follow-up action.

5.1.1.4.4 Remote Access VPN Service

Remote Access VPN Service utilizes TLS1.2 or better encryption to allow individual endpoints to dynamically establish on-demand encrypted access to the client network.

The PROPOSER’S Remote Access VPN Service must meet the following requirements:
• Must support a wide variety of endpoint platforms, including but not limited to the following:
  o Windows
  o Apple MacOSX
  o Google ChromeOS
  o Apple iOS
  o Android
• Must allow integration with client user directories (Active Directory, LDAP, etc.) to facilitate authentication requirements to establish VPN connections.
• Must provide a means of multi-factor authentication.
• Must allow per-user and per-group rules that define what each user, or group of users, can access at the client network when using the Remote VPN Service.

The PROPOSER must provide Remote Access VPN Service to all clients as identified in Reference Table 10.5.1 AREN Services List.

5.1.1.4.5 Understanding and Approach

The PROPOSER must respond to this section with a detailed description of its AREN Managed Firewall Service. This description must include, at a minimum, the following information:
• Hardware platform(s) used to provide service
  o Manufacturer
5.1.1.5 Managed Wifi Service

Managed Wifi Service provides the AUTHORITY’S clients with wireless access points configured to allow wireless users to access the client’s network and MIA Service.

The following subsections of 5.1.1.5 list features and capabilities required of the Managed Wifi Service.

As a policy of the AUTHORITY, Managed Wifi Service is only provided to clients who also receive MIA Service.

The PROPOSER must respond to all subsections of 5.1.1.5 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.1.1.5.1 Performance Requirements

The PROPOSER’S Managed Wifi Services must meet or exceed Performance Requirements specified for MIA Service in Section 5.1.1.1.4.

The current Managed Wifi solution (provided by the current professional services contractor) uses a combination of Juniper Mist AP43-US and AP61E-US access-points. All instances of the AP61E-US include an AccelTex ATS-LP-N-BHJ-P Lightning Arrestor and ATS-OP-245-47-4NP-36 antenna.

The PROPOSER’S solution for each client must meet or exceed the bandwidth, range, and simultaneous connections capabilities of the currently installed APs. The client location and model/count of currently install APs can be found in Reference Table 9.5.2 Wifi Requirements.

5.1.1.5.2 Central or Distributed Management

The PROPOSER must configure and maintain all devices required to provide the Managed Wifi Service. Clients do not require management access. Therefore, if desired, the PROPOSER may choose a design where all Wifi Services are centrally managed.
5.1.1.5.3 Wired vs. Mesh Design

All locations currently receiving Managed Wifi Service have wired connections to each Access Point (AP). The PROPOSER must use these wired connections for APs that it deploys for its service.

5.1.1.5.4 Access Point Inventory and Location

The PROPOSER must create, maintain, and provide to the AUTHORITY a simple floorplan for each Managed Wifi Service client showing the location of each installed Access Point if it is awarded the Contract.

5.1.1.5.5 Configured Networks

The PROPOSER'S Managed Wifi Service must provide a Guest Wireless network that permits only Internet access. The PROPOSER must permit the client to specify the SSID used for its Guest Wireless network if the client so desires.

The PROPOSER'S Managed Wifi Service must also provide a Staff network that permits access to the client’s network, in addition to Internet access. The Staff network credentials at one client must not permit access to the Staff network at any other client location, unless both clients and the AUTHORITY approve. The PROPOSER must permit the client to specify the SSID used for its Staff network if the client so desires.

5.1.1.5.6 Encryption Standard

The PROPOSER'S Managed Wifi Service must support and use a minimum of WPA2 wireless security protocol.

5.1.1.5.7 Authentication

The PROPOSER’S Managed Wifi Service must allow for the use of pre-shared keys on each configured network.

The PROPOSER must detail in the Understanding and Approach section below if it can provide a solution that would integrate with a client’s central authentication or user directory service. This may be an option for some clients, but most clients do not have such a service and therefore must use a pre-shared key.

5.1.1.5.8 Support

The PROPOSER’S Helpdesk will be responsible for assisting users at each client location if they call to report trouble using the Managed Wifi Service.
5.1.1.5.9 Client List

The PROPOSER must provide Managed Wifi Service to all client locations as identified and detailed in Reference Table 10.5.2 Wifi Requirements.

5.1.1.5.10 Understanding and Approach

The PROPOSER must respond to this section with a detailed description of its AREN Managed Wifi Service. This description must include, at a minimum, the following information:

- Hardware platform(s) used to provide service
  - Manufacturer(s)
  - Model(s)
- Description of PROPOSER’S approach and detail that demonstrates PROPOSER’S understanding of how to design, deploy, manage, and maintain a solution to meet the stated requirements.

5.1.1.6 Miscellaneous AREN Services

The PROPOSER must respond to all subsections of 5.1.1.6 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.1.1.6.1 Content Filtering Service

Content Filtering Service provides clients the ability to block Internet access to content they have determined is inappropriate. This service is provided to assist clients who need to meet regulatory requirements such as the Children’s Internet Protection Act (CIPA).

As a policy of the AUTHORITY, Content Filtering Service is only provided to clients who also receive MIA Service.

The PROPOSER must provide Content Filtering Services, using a solution from iBoss, that allows each client to create and manage its own filtering requirements. The PROPOSER must explain how its proposed solution works with sufficient technical detail to understand failure scenarios and any potential for the service to interfere with non-filtered clients.

The PROPOSER must also acquire and provide a license from iBoss to enable MIA clients to operate their own iBoss solutions if they choose to acquire their own hardware/solution direct from iBoss.

The PROPOSER must provide Content Filtering Services to all clients as identified in Reference Table 10.5.1 AREN Services List. Content Filtering Services Infrastructure must be capable of
supporting “Level/Contract Year 5 Bandwidth” throughput as specified in Cost Proposal Table 5.1d AREN Other Services Costs.

5.1.1.6.1.1 Performance Requirements

The PROPOSER’S Content Filtering Services must not interfere with the ability for other services (e.g., MIA Service) to meet their performance requirements.

5.1.1.6.2 DNS Service

The PROPOSER must provide a Domain Name System Service as described in this section.

5.1.1.6.2.1 Standards Compliance

The PROPOSER’S DNS Service must comply with IETF RFC 1035 and other companion RFCs as published by the Internet Engineering Task Force (IETF).

5.1.1.6.2.2 DNS Service Availability

The PROPOSER’S DNS Service must be available 24x7x365. It must be one of the most fault-tolerant services within AREN due to the key role it plays in the function of all other services.

5.1.1.6.2.3 Geographic Diversity

The PROPOSER’S DNS Service must be physically operated at multiple geographically diverse physical locations. Any event at one location must not impact service at the other location(s).

5.1.1.6.2.4 Hosted and Managed Zones

The PROPOSER’S DNS Service must include hosting and managing AUTHORITY-owned and client-owned domains. The AUTHORITY will provide a list of domains and associated data (including reverse zones for IPv4 and IPv6 address space) that the PROPOSER must provide service for.

The PROPOSER must assist clients and the AUTHORITY through the process of registering, transferring, and editing the configuration of their domains with the registrar.

5.1.1.6.2.5 Delegated Zones

The AUTHORITY has been delegated (zone delegate) by the U.S. Domain Registry (nic.us) to administer and maintain the following domains:

- cc.al.us
- k12.al.us
- lib.al.us
- mus.al.us
The PROPOSER’S DNS Service must provide the role of zone delegate for these domains. This role includes responding to and fulfilling requests from authorized entities to create and delegate sub-domains to their own DNS servers.

5.1.1.6.2 Ipv4 & Ipv6 Support

The PROPOSER’Ss DNS Service must support Ipv4 and Ipv6 for both forward and reverse lookups.

5.1.1.6.3 Managed LAN Service

The PROPOSER must provide a Managed Local Area Network (LAN) Service that interconnects network devices in an office environment. This service involves the deployment and maintenance of ethernet routing and switching devices in office environments.

For existing services, the PROPOSER must provide routers and switches and the ability to properly troubleshoot and resolve connectivity issues to devices using the existing cable plant.

The PROPOSER must provide Managed LAN Services to the clients identified in Reference Table 10.5.1 AREN Services List, according to the detail given in the Managed LAN Service columns.

5.1.1.6.4 Layer2 Transport Services

Layer2 Transport Services provide Ethernet transport across the AREN Service Platform between two or more locations. These services must support the ability to transport client-configured IEEE 802.1q VLAN tags. If there are multiple paths in the AREN Service Platform that can be used for a given Layer2 Transport Service, then the service must be capable of automatic failover should one path fail.

5.1.1.6.4.1 Performance Requirements

The PROPOSER’S Layer2 Transport Services must meet or exceed Performance Requirements specified for MIA Service in Section 5.1.1.1.4.

The PROPOSER must ensure that its AREN Service Platform solution detailed in Section 5.1.2 below has capacity to support the Layer2 Transport Services without impacting other AREN Services.

5.1.1.6.4.2 Client List

The PROPOSER must provide Layer2 Transport Services to clients as described in Reference Table 10.5.3 AREN L2 Transport Reqs.
5.1.1.6.5 Layer3 VPN Services

Layer3 Transport Services allow for partitioned routing tables in AREN Service Platform routers that can be provided to AREN clients to use for their own routing purposes; without impacting the AREN Service Platform routing table.

5.1.1.6.5.1 Performance Requirements

The PROPOSER’S Layer3 VPN Services must meet or exceed Performance Requirements specified for MIA Service in Section 5.1.1.1.4.

5.1.1.6.5.2 Client List

There are not any Layer3 VPN Services required in response to this RFP, but the PROPOSER’S AREN Service Platform must be capable of providing a Layer3 VPN service, without additional infrastructure cost to the AUTHORITY.

5.1.1.6.6 Understanding and Approach

The PROPOSER must respond to this section with a detailed description of its solutions to provide all services described in Section 5.1.1.6. This description must demonstrate the PROPOSER’s understanding of how to deploy, manage, and maintain each solution.

5.1.2 AREN Service Platform

The AREN Service Platform is a network that provides connectivity between AREN clients and AREN services. It is also used for AREN clients to connect to other AREN clients.

An AREN Service Platform node is defined as any physical location/building where the network traffic from two or more AREN clients is aggregated.

The PROPOSER must respond to all subsections of 5.1.2 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.1.2.1 Support Services Listed in Section 5.1.1

The PROPOSER must provide an AREN Service Platform with a network architecture capable of providing the AREN services and their associated requirements as described in Section 5.1.1.

5.1.2.2 Intra-Client Communication

The PROPOSER must allow intra-AREN (non-Internet) network communication between all AREN services and clients.
5.1.2.3 Bandwidth and Diversity

The **PROPOSER’S** AREN Service Platform must have sufficient bandwidth and connectivity (e.g., IP Transit, Peering, Caching, inter-node connections, Transport Subcontractor connections) to fully support all AREN Services simultaneously during a “single failure”. Furthermore, the **PROPOSER** must design the AREN Service Platform to support bandwidth for AREN Services (current and new) up to a total aggregate of 200Gbps without additional cost to the **AUTHORITY**.

For reference, the aggregate bandwidth demand for all AREN Services (inbound from external sources) is currently between 90Gbps and 100Gbps.

For the purposes of this requirement, a “single failure” is defined to be one of the following scenarios:

- Any single device failure
- An event (disaster, power failure, etc.) that disables all services within a 0.25-mile radius
- Failure of all services from a single Transport Subcontractor
- Failure of all IP Transit Service, Direct Peering, or Content Caching from a single provider
- Cable Plant disruption on a single pole/tower or underground cable path. (**PROPOSER** must do due diligence research to identify as much as possible about Transport Subcontractor transmission paths.)

This requirement does not extend to services with endpoints housed at a location impacted by a disaster. The Business Continuity section will cover this scenario.

An exception to this requirement will be allowed for nodes that provide service for only two clients, but this should be rare, if used at all. The **PROPOSER** is required to specify any node in their design that will use this exception and list the clients who receive services via these nodes.

5.1.2.4 Existing Infrastructure

The **AUTHORITY** maintains datacenter space, or agreements for datacenter space at two locations throughout the state of Alabama. The **PROPOSER’s** AREN Service Platform may use these locations to house equipment that supports its AREN Service Platform. Details of each location may be found in Reference Table 10.5.5 ASA Data Center Space.

The **PROPOSER** must provide detail of all space and power requirements for any use of **AUTHORITY**-provided datacenter space.

Due to the presence of NOC, HPC, Datacenter, and other AREN Services, the **PROPOSER** must include the ASC as one of the nodes in its AREN Service Platform design.
For the purposes of providing an AREN Service Platform Node at the ASC, the **AUTHORITY** will provide to the selected **PROPOSER** space for one row of network cabinets/racks up to 22ft. long (42RU height limit). The **PROPOSER** must provide detail in the Understanding and Approach section for how it intends to use this space, including power requirements.

The **AUTHORITY** also has ‘right to use’ access to fiber optic cables between its datacenter space at RSA Headquarters and the following two locations:

1. **AUTHORITY** Montgomery Business Office (four singlemode fibers)
2. RSA Plaza Building (location of UA-Auburn University System Office, two singlemode fibers)

The **PROPOSER** may use these fiber optic cables in its proposed solution.

### 5.1.2.5 Southern Light Rail Connection

The **AUTHORITY** has a Memorandum of Understanding with Southern Light Rail (SLR), also known as Southern Crossroads (SoX), to connect AREN as a Sponsored Educational Group Participant (SEGP) for Internet2, National Lambda Rail (NLR), and other major research networks.

The **PROPOSER’S** AREN Service Platform must include four 10-gig ports (configured with IEEE 802.3ad link aggregation) and 40Gbps of transport to connect with SoX at one of their peering locations. The current SoX connection is located at Digital Realty, 56 Marietta, Atlanta, GA 30303.

### 5.1.2.6 Network Design and Configuration

The **PROPOSER** must design, deploy, manage, and maintain routing configuration to enable all public routable prefixes assigned to any AREN MIA Service client to be reachable from all AREN Services and the Internet.

### 5.1.2.7 Performance Requirements

The **PROPOSER’S** AREN Service Platform must meet or exceed the following performance metrics:

- **Data Delivery** – 99.95% of data must reach its intended destination without error or loss.
- **Latency** – Latency between any two points on the AREN Service Platform must be less than 20ms.
- **Service Availability** - As specified in Section 5.1.4.1, the average monthly service availability for each AREN-related service must be greater than or equal to 99.9%.
The PROPOSER’S response to the Understanding and Approach section below must detail the performance capability of its proposed solution; including detail on how the above metrics will be measured and reported to the AUTHORITY. Any special cases where these performance requirements cannot be met (very rare) must also be detailed, with a list of impacted clients and services in the Understanding and Approach section.

The PROPOSER must include any SLAs that it receives from its Transport, IP Transit, Peering, and Caching subcontractors when responding to the Understanding and Approach section regarding performance requirements.

5.1.2.8 Understanding and Approach

The PROPOSER must respond to this section with a detailed description of its AREN Service Platform design. This description must include, at a minimum, the following information:

- Network Diagram
- List of all nodes in the AREN Service Platform with the following details:
  - Physical Address
  - Network Connectivity (identify Transport, IP Transit, Peering, and Caching subcontractors including bandwidth, and number of connections per node)
    - Directly connected AREN Service Platform Nodes
    - Connections to Transport Subcontractor for the purpose of client connectivity
  - Total Direct/Primary Bandwidth provided by the node to clients
    - Direct/Primary Bandwidth must be calculated as the total bandwidth provided, given no service outages, to all clients directly connected to the node, without going through any other AREN node.
  - Identify the “single failure” scenario that puts the highest client bandwidth burden on the node, and detail what that bandwidth burden will be.
- Physical Address and description of all locations where network hardware will be installed (if not already addressed in the list of nodes). State clearly when ASA datacenter space is being used.
- List of all network hardware used with the following detail:
  - Hardware Manufacturer
  - Hardware Model Number
  - Published End-of-Life/End-of-Support/End-of-Service dates (State N/A if none are published)
  - Location where hardware will be installed
  - Brief description of the hardware’s purpose
- Explanation of how the solution meets each of the requirements listed in Sections 5.1.2.1 through 5.1.2.9.
- Demonstrate the PROPOSER’S understanding of the AREN Service Platform’s purpose and best practices necessary to properly configure and operate it.
5.1.3 Network Operations
The AREN Network Operations hierarchy encompasses the following areas:

- Network Management System
- Network Operations Center (NOC)
- Helpdesk
- Network Management Methodology
- AREN Business Operations
- Network Operations Reports

These areas address the need to track and monitor AREN infrastructure and respond to events and incidents identified by monitoring, clients, and/or other sources.

Definitions for this section:

Event: any detectable or discernible occurrence that has significance for the management of the IT infrastructure or the delivery of IT service.

Incident: a single unplanned occurrence that causes, or may cause, a service interruption or a reduction in the quality of service.

Problem: a cause or potential cause of one or more incidents.

5.1.3.1 Network Management System (NMS)

5.1.3.1.1 Network Management System Overview
Managing a network with the complexity and size of AREN will require several tools. These tools must provide easy access to network information, trouble tracking, and other functions that are helpful when running a service provider network. The PROPOSER is required to provide tools that, at a minimum, meet the requirements of this section.

5.1.3.1.2 Network Management System Requirements
The following defines the general requirements for NMS tools.

The PROPOSER must respond to all subsections of 5.1.3.1.2 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

Explain in detail if PROPOSER’S solution exceeds requirements.
5.1.3.1.2.1 Network Monitoring and Alerting Tool

The **PROPOSER** must provide a tool that monitors network operation and detects failures and degradation of services.

Failures/degradation of services must be identified in a timely manner with a goal to have NOC response already underway before clients call.

The tool must be able to alert NOC personnel to initiate a response when a failure or degradation in performance is detected.

5.1.3.1.2.2 Network Capacity and Performance Monitoring and Tracking Tool

The **PROPOSER** must provide a tool that observes and records the bandwidth utilization and latency of each network transport service related to AREN services.

The tool must be able to provide historical graphs of this data throughout the Contract.

The tool must be able to calculate the 95th percentile bandwidth utilization of each client’s Managed WAN and MIA Service for the past week, and the past 30 days.

The tool must be able to alert NOC staff when an AREN network transport service reaches a 95th percentile utilization of 75%. The goal of this requirement is not to alert on unusual bursts of traffic, but to alert on a trend that shows full capacity is imminent on a routine basis; preferably with enough time to order upgrades before full capacity is reached.

The tool must be able to identify advantageous peering and caching opportunities to assist with seeking direct peered bandwidth or caching servers in lieu of IP Transit bandwidth when possible.

5.1.3.1.2.3 Trouble Tracking System

The **PROPOSER** must provide and use a trouble-tracking tool to manage events/incidents.

At any time, the **PROPOSER’S** Helpdesk must be able to quickly provide a list of currently unresolved events/incidents to the **AUTHORITY**, upon request.

The **PROPOSER’S** Helpdesk must also be able to quickly provide (upon request from the **AUTHORITY**) the latest status, latest communication with the impacted client(s), and the next steps toward resolution for each event/incident.
5.1.3.1.2.4 Device Configuration Management

The PROPOSER must provide and use a tool that maintains a copy of all network device configuration and tracks all changes to the configuration. Changes must be logged with a timestamp of when the change occurred and identify the user that made the change.

5.1.3.1.2.5 Internet Protocol (IP) Address Management

The PROPOSER must provide a tool to plan, track, and manage the IPv4 and IPv6 addresses used for AREN.

5.1.3.1.2.6 Inventory Management

The PROPOSER must provide a tool that tracks the existence and location of all physical infrastructure and software provided for AREN.

5.1.3.1.2.7 Tool Integration

Preference will be given to tools that are well integrated, providing a single interface to access all information. However, it is understood that in some cases, a better solution may be available with a stand-alone tool that is not well-integrated with other tools.

The PROPOSER must detail the list of tools it intends to use and how they integrate with each other in the Understanding and Approach section below.

5.1.3.1.2.8 Tool Access and OneASA Integration

The PROPOSER must provide read-only access to the AUTHORITY for all NMS Tools mentioned in the response. The AUTHORITY must have the ability to access all stored data about clients, trouble tracking information, and other data the PROPOSER stores in its tool(s) related to the management of AREN.

All information created and stored in the NMS Tools mentioned in the response will be considered the property of the AUTHORITY and as detailed in an upcoming section on Transition Management, must be provided by the PROPOSER upon request.

The PROPOSER’S tool(s) must be able to export reporting data in a format supported by the AUTHORITY’S OneASA tool. See the upcoming section on OneASA for more detail on this.

5.1.3.1.2.9 Approach and Understanding

The PROPOSER must provide a detailed description of the PROPOSER’S approach to complying with each of the requirements in Section 5.1.3.1.2. This description must demonstrate the
PROPOSER’S understanding and ability to provide, use, and maintain Network Management System tools for AREN.

5.1.3.2 NOC & Helpdesk

5.1.3.2.1 NOC & Helpdesk Overview

The Network Operations Center (NOC) monitors the operation of the network to identify and respond to events and incidents that degrade or interrupt service(s).

The Helpdesk handles initial contact with AREN clients to respond to their requests and notifications. The Helpdesk is also responsible for communicating to clients the status of relevant events and incidents identified by the NOC or other sources.

Together, the NOC and Helpdesk are responsible for maintaining the level of service provided to AREN clients. Therefore, it is critical that the PROPOSER demonstrate a thorough understanding of how to provide and operate these functions.

5.1.3.2.2 NOC & Helpdesk Requirements

The following subsections define the general requirements for providing AREN NOC and Helpdesk Services.

The PROPOSER must respond to all subsections of 5.1.3.2.2 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

Explain in detail if PROPOSER’S solution exceeds requirements.

5.1.3.2.2.1 Communication Capabilities

The PROPOSER shall provide accessibility and communication to the NOC and Helpdesk from the AREN client community through no less than the following methods:

- An AUTHORITY-provided toll-free number (800-338-8320)
- E-mail

5.1.3.2.2.2 Trouble Tracking System

The PROPOSER’S NOC and Helpdesk services must use the previously mentioned trouble-tracking tool to manage events and incidents. All reports of trouble and associated updates, whether NOC or Helpdesk related, must be logged in this tool.
5.1.3.2.2.3 Interaction with Clients

The **PROPOSER** must provide technical assistance to clients as part of the Helpdesk service offering and should expect and allow for representatives of any individual client to contact the Helpdesk with questions or to report a fault or technical problem.

5.1.3.2.2.4 Staff Availability

All **PROPOSER** designated NOC and Helpdesk support personnel must be dedicated to the Contract.

The **PROPOSER** must staff all designated NOC and Helpdesk support personnel during the business day (Monday through Friday, 8 a.m. till 5 p.m.).

The **PROPOSER** must provide after-hours coverage to operate the NOC and Helpdesk for all other times.

The **PROPOSER** must provide escalation procedures detailing how NOC and Helpdesk services are maintained during events that cause requirement for above average response.

5.1.3.2.2.5 On-Site Staff Requirements

The **PROPOSER** must provide a minimum of one on-site NOC and/or Helpdesk staff member at the ASC, 24x7x365.

5.1.3.2.2.6 Staff Qualifications

The **PROPOSER** shall staff the NOC and Helpdesk with technical support engineers qualified to respond to any level of event or incident that could impact AREN services described in Section 5.1.1 AREN Services and Features or Section 5.1.2 AREN Service Platform. It should be assumed that more advanced staff will have other responsibilities (e.g., network upgrades, client service changes, etc.) and will only be engaged to support the NOC/Helpdesk on an as-needed basis.

5.1.3.2.2.7 Workload

The **PROPOSER** shall provide the minimum number of qualified NOC and Helpdesk staff based on the current range of 30 to 50 daily technical support calls in addition to peak move, add, change, and disconnect activity approaching 100 orders per month.

5.1.3.2.2.8 NOC and Helpdesk Service Level

The **PROPOSER** must provide a detailed response regarding NOC and Helpdesk Service Levels that it commits to maintain. The **PROPOSER** must explain in the Understanding and Approach section below how it will maintain these Service Levels.
This response must contain at a minimum:

- Number of simultaneous calls supported
  - During business hours
  - After hours
- Average time to respond to initial email and other non-phone-sourced requests
  - During business hours
  - After hours
- Maximum time between updates in tracking system for a given event/incident.

5.1.3.2.9 Understanding and Approach

As stated above, the **PROPOSER** must respond to this section with a detailed description of the **PROPOSER’s** approach to complying with each of the requirements in Section 5.1.3.2.2. This description must also demonstrate the **PROPOSER’s** understanding and ability to operate, maintain, and support a service provider NOC and Helpdesk. The response to this section must conclude with a statement: “We acknowledge and confirm that we will follow the AREN NOC and Helpdesk Approach as described here for the duration of the Contract.”

5.1.3.3 Network Management Methodology

The previous sections describe the tools and staff requirements for AREN Network Operations. This section will detail the methodologies required to enable the staff to use the available tools to operate AREN in a successful manner.

5.1.3.3.1 Fault Management

Fault Management procedures provide a framework for identifying and resolving problems that affect a client’s ability to receive AREN services.

Elements of an effective Fault Management system include the following:

- **Network Status Supervision** – Actively monitoring all **PROPOSER** services to determine up/down/degraded status.
- **Trouble Documentation and Tracking** – Documenting each step of the troubleshooting and resolution process.
- **Prioritization of Support** – Differentiating non-service impacting events from service-impacting incidents and focus resources effectively to prioritize service restoration. Prioritizing multiple client incidents over single client service incidents. Escalating cases to appropriate personnel without delay.
- **Problem Identification** – Understanding when recurring events and incidents are related.
- **Status Notification** – Keeping all involved parties updated regarding the status of trouble events.
• **Backup and Reconfiguration** – Maintaining configuration backups and being prepared to use these backups to restore operations.
• **Reporting** – Collecting and distributing statistical fault information used for trend analysis and as a quality assurance vehicle to ensure that problems are being solved.

The **PROPOSER** must respond to this section by explaining its understanding and approach for AREN Fault Management. This response must conclude with the statement: “We acknowledge and confirm that we will follow the AREN Fault Management System as described here for the duration of the Contract.”

5.1.3.3.2 Network Capacity & Performance Planning

Proper Network Capacity & Performance Planning will help prevent resource starvation and related degradation of service. Capacity planning must be implemented for all resources used to provide service, including, but not limited to network hardware, network bandwidth, and IP address space.

The **PROPOSER** is encouraged to monitor and manage as many metrics as is necessary to ensure quality service for AREN clients. However, the following metrics are required to be monitored and managed for each network-related service:

• **Service Availability** – A percentage value representing the amount of time each network-related AREN service is operational compared to the total time over a given period.
• **Network Latency** – A value in milliseconds representing the round-trip delay associated with network-related AREN services.
• **Bandwidth Utilization** – A percentage value representing the amount of bandwidth used compared to the total available bandwidth. AREN requires two different bandwidth utilization metrics:
  o **Average Utilization** – The average percent utilization of a resource over a given period.
  o **95th Percentile Utilization** – 95% of the time, the resources utilization is below this number.

The **PROPOSER** must respond to this section by explaining its understanding and approach for AREN Network Capacity & Performance Planning. The response must include details of how resources will be managed and how metrics will be measured and reported. The **PROPOSER** must also explain how its Network Capacity & Performance Plan will enable the **AUTHORITY** to make timely decisions and avoid unexpected events related to lack of resources. This response must conclude with the statement: “We acknowledge and confirm that we will follow the AREN Capacity & Performance Planning Approach as described here for the duration of the Contract.”
5.1.3.3 Configuration Management

Configuration Management is the process within Network Operations responsible for maintaining AREN infrastructure in a desired and consistent state for the purpose of protecting the services provided to clients. An effective Configuration Management system will ensure service levels do not drop when changes are made.

Elements of Configuration Management include:
- Inventory Management – Knowing what hardware and software exists in the network and what its current configuration is.
- Change Management – A procedure that all changes to AREN must follow to ensure no change negatively impacts service levels.

The PROPOSER must respond to this section by explaining its understanding and approach for AREN Configuration Management. This response must conclude with the statement “We acknowledge and confirm that we will follow the AREN Configuration Management Approach as described here for the duration of the Contract.”

5.1.3.4 Satisfaction Surveys

For the purpose of maintaining a desired level of client satisfaction, the AUTHORITY will periodically provide survey questions and a list of clients to the PROPOSER. The PROPOSER must distribute these surveys with the provided content to the listed clients and collect the results. The results must be reported to the AUTHORITY as they are received.

The PROPOSER must respond to the section with an “acknowledge and will comply” statement.

5.1.4 General Requirements

The PROPOSER shall provide an “acknowledge and will comply” statement that they can perform professional services to manage the network systems and infrastructure required to operate the Alabama Research and Education Network (AREN), provide requested services, and perform in accordance with the tasks and responsibilities as outlined above.

The following sections detail requirements that apply to all services listed in Section 5.1.

The PROPOSER must respond to all subsections of 5.1.4 with separate “acknowledge and will comply” statements.

5.1.4.1 Service Availability

The average monthly service availability for each AREN-related service must be greater than or equal to 99.9%.
5.1.4.2 Installation and Maintenance

The PROPOSER must account for Installation and Maintenance costs of all hardware that is provided to meet the requirements of Section 5.1, including any necessary travel, in its response.

5.1.4.3 Hardware Failure and Replacement

The PROPOSER will be responsible for the replacement, including any necessary travel, of any failed hardware that is provided to meet the requirements of Section 5.1, at no additional cost to the AUTHORITY.

The PROPOSER must maintain a support contract and/or proper sparing procedure to ensure that all hardware failures can be handled without impacting performance requirements.

5.1.4.4 Security Requirements

Refer to Section 5.8 Operations Security & Business Continuity for additional security requirements.

5.1.4.5 AREN Reports

The following lists and describes all reports that will be required of the PROPOSER for services provided in response to the AREN section.

The PROPOSER must respond to all subsections of 5.1.4.5 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of their ability to collect and report the requested data.

5.1.4.5.1 Monthly Helpdesk Load Report

The PROPOSER must provide a Monthly Helpdesk Load Report to the AUTHORITY with the following information:

- Date of the period being reported must be on all pages of the report.
- Support Call Volume (Number of incoming support calls made to the Helpdesk)
  - Total number of calls
    - Show totals for each service (e.g., Managed Internet, Managed Firewall, etc.)
  - Average calls per week
  - Average calls per day
  - Average calls per each hour of the day
- Support Call Response Time (time to pick-up, number of calls that go to voicemail, etc.)
  - The PROPOSER must explain what its solution is able to provide for this report
5.1.4.5.2 Weekly Incident Report

The PROPOSER must provide a Weekly Incident Report to the AUTHORITY with the following information:

- Date of the period being reported must be on all pages of the report.
- List of incidents observed during the reported period.
- Report must be segregated by the directly impacted service, effectively creating a version of the report for each service that was directly impacted during the reported period. Exception: Managed Internet and Managed WAN services must be reported together.
  - For services that are impacted indirectly, the PROPOSER must reference the service dependency tree in a report appendix. For example: Managed Internet Access Service incidents should reference a service dependency attachment showing that Managed Firewall, Managed Wifi, etc. are dependent services of Managed Internet Access.
- Summary Page showing total number of incidents, sub-totaled by Reason For Outage (RFO).
  - The AUTHORITY will work with the PROPOSER to create and maintain a list of common RFO’s that will be used for sub-totaling the list.
  - Each RFO sub-total must be accompanied by the number of clients impacted by the incident(s).
  - Each RFO sub-total must be accompanied by the number of sites (physical locations) impacted by the incident(s). This number should include sites that are directly and indirectly impacted.
- Detail Page(s) for each RFO
  - Must include a section dedicated to each RFO for which there were incidents during the reported period.
  - Must list each incident individually with the following information:
    - Trouble Ticket #
    - Responsible Party (Client, PROPOSER, Transport Subcontractor, AUTHORITY, etc.)
    - List of Client(s) and their subsequent Site(s) and Host(s) that were impacted.
    - Start of Incident (day of week and timestamp)
    - End of Incident (day of week and timestamp)
    - Calculated Total Downtime (understood to include degraded service and downtime, calculated as End Timestamp – Start Timestamp)

5.1.4.5.3 Monthly Incident Report

The PROPOSER must provide a Monthly Incident Report to the AUTHORITY that must include the following information:

- Date of the period being reported must be on all pages of the report.
- Downtime Analysis
o Total Downtime of Managed Internet Access and Managed WAN Access services across all clients during the reported period.

o List Transport Subcontractors that the PROPOSER uses in its solution and the associated total downtime each was responsible for during the reported period.

o List MIA and MW outages during the reported period if redundant systems were unable to prevent the outage from impacting client services.
  ▪ Impacted Client(s)
  ▪ Trouble Ticket #
  ▪ Responsible Party (Client, PROPOSER, Transport Subcontractor, AUTHORITY, etc.)
  ▪ Start of Incident (day of week and timestamp)
  ▪ End of Incident (day of week and timestamp)
  ▪ Calculated Total Downtime (understood to include degraded service and downtime, calculated as End Timestamp – Start Timestamp)
  ▪ Calculated Downtime unrelated to PROPOSER solution (definition to be negotiated with the AUTHORITY)
  ▪ Calculated Downtime related to PROPOSER solution (definition to be negotiated with the AUTHORITY)

5.1.4.5.4 Bi-Annual Status Report

The PROPOSER must provide a Bi-Annual Status Report to the AUTHORITY twice a year (January 1 and July 1). This report must include the following information:

• Date of the period being reported must be on all pages of the report.

• Downtime Analysis
  o Total Downtime of Managed Internet Access and Managed WAN Access services across all clients during the reported period.
  o List Transport Subcontractor(s) that the PROPOSER uses in its solution and the associated total downtime each was responsible for during the reported period.
  o List AREN Service Platform outages during the reported period if redundant systems were unable to prevent the outage from impacting client services.
    ▪ Trouble Ticket #
    ▪ Responsible Party (Client, PROPOSER, Transport Subcontractor, AUTHORITY, etc.)
    ▪ List of Client(s) and their subsequent Site(s) and Host(s) that were impacted.
    ▪ Start of Incident (day of week and timestamp)
    ▪ End of Incident (day of week and timestamp)
    ▪ Calculated Total Downtime (understood to include degraded service and downtime, calculated as End Timestamp – Start Timestamp)

• Capacity Forecasting
  o Provide a list of transport circuits used in the PROPOSER’S MIA and MW solutions. Each circuit must identify which client and site it services. For each circuit, the following information must be provided:
    ▪ Circuit capacity in Mbps or Gbps
• 95th percentile utilization for the reported period
• Average utilization for the reported period
  o Report must highlight any circuits with greater than 75% utilization using the 95th percentile.
  ▪ PROPOSER must provide recommendations for each circuit that reaches this watermark to proactively avoid a situation where the circuit reaches 100% utilization.
• Configuration Management
  o The PROPOSER must explain in its response to this section what reporting it will provide to summarize and/or detail Configuration Management information for the reported period.

5.1.4.5.5 Ad-Hoc Reports
The PROPOSER must provide ad-hoc reports on any information related to the above reports as requested by the AUTHORITY.

5.1.4.5.6 On-Demand Reporting
The PROPOSER must respond to this section with detail about the information it can make available on-demand to the AUTHORITY without requiring a specific request.

5.1.4.5.7 Performance Reporting
The PROPOSER must respond to this section with detail about how it will ensure and report that each of the following services meets its associated Performance Requirements.
  • Managed Internet Access Service
  • Managed WAN Service
  • Managed Firewall Service
  • DNS Service
  • AREN Service Platform

5.1.4.5.8 Understanding and Approach
The PROPOSER must respond to this section detailing how it will collect and provide the requested information for each report.

5.1.5 E-Rate Coordination and Compliance Requirements

5.1.5.1 E-Rate Overview
The AUTHORITY participates in the federal E-rate program administered by the Universal Service Administrative Company (USAC) under the oversight of the Federal Communications Commission (FCC). The AUTHORITY is seeking E-rate eligible services for the Alabama Research and Education Network (AREN) Consortium under Category One for Data Transmission and/or Internet Access Services. The
AUTHORITY, at a later date, may require services under Category Two for Internal Connections and Managed Internal Broadband Services (MIBS).

The PROPOSER must respond to all subsections of 5.1.5 with separate “acknowledge and will comply” statements.

5.1.5.2 AREN Consortium Service Provider
The AREN Consortium is a group of eligible public schools/school systems and libraries/library systems throughout the State of Alabama. The AUTHORITY is considered the Consortium Lead and Billed Entity and will make certifications on behalf of the AREN Consortium members. A complete list of current AREN Consortium members is included in Cost Proposal Table 5.1c AREN Internet & WAN Costs. The PROPOSER will fulfill the role of AREN Consortium Service Provider.

5.1.5.3 AREN Consortium Services
During the term of the Contract, the AREN Consortium will be expanded to meet the growing needs of schools/school systems and libraries/library systems, including new members and increased bandwidths. The AREN Consortium services offering will be modified during the term of the Contract to include additional E-rate eligible services, as they are identified by the Schools and Libraries Program. The PROPOSER should position itself to enable the AUTHORITY to take advantage of emerging technologies that would benefit the AREN Consortium members, during the term of the Contract. The PROPOSER shall commit to providing these services and upgrades and to work with the AUTHORITY to implement where advantageous, at rates discounted and structured consistent with the original rates proposed. New services and capabilities must be reviewed and approved by the AUTHORITY prior to being added and offered to AREN Consortium members.

5.1.5.4 AREN Consortium Service Provider Compliance Requirements
The AREN Consortium Service Provider shall assist the AUTHORITY in the E-rate process subject to Schools and Libraries Division (SLD) rules and regulations. As the AREN Consortium Service Provider, the PROPOSER is required to file the appropriate forms with the SLD and assist in the consortium application process in a timely manner, so that eligible funding is secured. Due to the large pre-discount amounts being applied for on behalf of the AREN Consortium, the AUTHORITY will only pay a monthly discounted invoice to the PROPOSER throughout the duration of the contract. The monthly discount amount will be mutually agreed upon based on the Funding Year application. Once the Funding Commitment Decision Letter (FCDL) is received, the PROPOSER’S invoice shall be adjusted over the remaining months to accommodate any funding shortage or overage. The AUTHORITY is not responsible to the PROPOSER for the timely delivery of discounted payments by the FCC E-rate Program.

5.1.5.5 Category One Compliance Requirements
The AREN end-to-end Category One Data Transmission and/or Internet Access Services offering must provide a solution that complies with these requirements as part of their overall service offering.
The AREN Consortium service provider must comply with all service provider related requirements associated with USAC's Schools & Libraries Division (SLD) also known as the E-rate Program.

The AREN Consortium Service Provider must be in compliance with E-rate Program rules at all times. In the event that the SLD determines that the AREN Consortium service provider has not acted in compliance with Program rules, it can result in denial of funding, reduction in funding, cancellation of funding (a commitment adjustment), audit or other investigation, for which the AREN Consortium service provider will take full responsibility. The PROPOSER agrees to indemnify the AUTHORITY for any loss of service and discounts including but not limited to fines, costs, and any other fees for its failure to adhere to any E-rate program rules. The AUTHORITY reserves the right to terminate the contract should the AREN Consortium service provider fail to comply with E-rate Program rules.

The AREN Consortium service provider shall be registered with USAC by filing FCC Form 498, Service Provider Identification Number and General Contact Information Form. In addition, the AREN Consortium service provider must file annually, FCC Form 473, Service Provider Annual Certification Form. If the AREN Consortium service provider is a telecommunications company, FCC Forms 499-A and 499-Q must be filed, if applicable. The AREN Consortium service provider shall provide its FCC Registration Number (FCCRN) and certification of current green light status with the FCC. If at any time during the Contract period the AREN Consortium service provider loses green light status, the AUTHORITY is to be notified within 30 days. Loss of green light status could cause the Contract to become null and void.

The AREN Consortium service provider must comply with and/or assist the AUTHORITY'S Consortium members as requested in E-rate related matters.

5.1.5.6 FCC Form 471 Process
The AREN Consortium service provider must assist in the FCC Form 471 process. The AREN Consortium service provider is expected to be a resource to the AUTHORITY and its consortium members for information about the technology, products and services that can be furnished. The AREN Consortium service provider must provide timely information that the AUTHORITY can include in its application, as the supporting documentation, which describes in detail the services being ordered. If the AUTHORITY decides to do a service substitution, the service provider must explain in detail how the functionality of the original request is being met by the newly desired configuration.

The AREN Consortium service provider shall have adequate staff, as determined by the AUTHORITY, available during the uncompensated transition period in order to support the AUTHORITY and its consortium members, so that the FCC Form 471 will be submitted within the required application timeline for Funding Year beginning July 1, 2023.
The AREN Consortium service provider shall have adequate staff, as determined by the AUTHORITY, available during the uncompensated transition period in order to assist the AUTHORITY as a resource to Program Integrity Assurance (PIA) inquiries during the FCC Form 471 review for Funding Year beginning July 1, 2023.

The PROPOSER must provide examples of completed FCC Form 471 cost calculations entries for the first 50 E-rate eligible line items on the Cost Proposal Table 5.1c: Level1/Contract Year 1 AREN Internet & WAN Costs.

5.1.5.7 AREN Consortium Service Provider Requirements
The AREN Consortium service provider must ensure that the AUTHORITY is clear about billing account numbers, contract numbers, ineligible components (if any), and other details of existing services.

The AREN Consortium service provider must also ensure that the AUTHORITY has current and complete information about its SPIN number and company name.

The AREN Consortium service provider must assist the AUTHORITY as a resource during Program Integrity Assurance (PIA) reviews. The AREN Consortium service provider must review the Receipt Acknowledgement Letter (RAL) and communicate with the AUTHORITY when received and ensure the corrections are made in a timely manner.

The AREN Consortium service provider must be able to provide information, clarifications, or other documentation to the AUTHORITY’S contracted E-rate consulting firm.

5.1.5.8 FCC Form 486
The AREN Consortium service provider is required to assist in the FCC Form 486 (Receipt of Service Confirmation and Children’s Internet Protection Act Certification Form) process.

The AREN Consortium service provider must provide the AUTHORITY with information relevant to the actual start date of services.

5.1.5.9 FCC Form 474
Once the Form 486 Notification Letter is received, the AREN Consortium service provider must submit FCC Form 474, or its SLD approved electronic data file equivalent, to the SLD to seek reimbursement for eligible discounts for services the AREN Consortium service provider has provided to the AUTHORITY. The AREN Consortium service provider shall submit a copy of the completed FCC Form 474, or its SLD approved electronic data file equivalent, to the AUTHORITY simultaneously for review to ensure proper billing to USAC.
The PROPOSER must provide examples of completed FCC Form 474 for the sites used in examples for FCC Form 471.

5.1.5.10 Invoicing to AUTHORITY
The AREN Consortium service provider must invoice the AUTHORITY for E-rate eligible services separately, provide examples of completed invoice to the AUTHORITY with the following for the sites used in examples for FCC Form 471 and FCC Form 474.

- Date of invoice
- Date(s) of service
- Funding Request Number (FRN)
- FCC Form 471 Application Number
- Name of AREN Consortium member receiving services
- Detailed description of services that reflects the AUTHORITY’S Contract specifications, FCC Form 470, FCC Form 471, and Attachment descriptions of same
- Breakdown of amount(s) to be billed to USAC (discounted portion of E-rate eligible charges) and amount(s) to be billed to the AUTHORITY (non-discounted amount of E-rate eligible charges)
- Cost allocation amounts, if any
- Invoice on service provider’s letterhead or other service provider-generated form
- AUTHORITY’s Billed Entity Number
- AREN Consortium Service Provider Identification Number (SPIN)
  - AREN Consortium service provider’s Federal Communications Commission Registration Number (FCCRN)
- Proper E-rate discount percentage as set forth by the application FRN and USAC Funding Commitment Decision Letter (FCDL)
- Signature on invoice attesting to the accuracy and completeness of all charges

5.1.5.11 E-rate Audit and Assurance
The AREN Consortium service provider will enforce an internal E-rate audit process annually that ensures that it complies with all E-rate program rules and regulations. Annual report must be provided to the AUTHORITY for review. At a minimum, this process must include the following:

- Separating E-rate ineligible professional services Contract costs from E-rate eligible costs
- Maintaining detailed records for substantiating E-rate eligible costs for basic technical support services where costs are allocated to multiple sites
- Ensuring that E-rate ineligible charges are not submitted to USAC
- Invoicing to USAC that is consistent with the Contract and the AUTHORITY’S FCC Form 470, FCC Form 471, and Cost Calculations.
- Ensuring that services are not provided to the AUTHORITY or any of the AREN Consortium members without a work order authorization
- Ensuring that AUTHORITY-approved substitute services are prominently noted on invoices submitted to USAC and the AUTHORITY
o Ensuring that supporting documentation is sufficient to demonstrate that what was approved per the FC DL was provided and when it was provided
o Ensuring that supporting documentation is sufficient to show the allocation of E-rate eligible amounts where costs are included as part of a larger service and billing
o Documenting cost allocation amounts
o Documenting that E-rate funded services were provided within the allowable Contract period and funding year
o Ensuring that proper FRN's are charged
o Ensuring that invoices and applicable USAC forms are submitted to USAC and the AUTHORITY in a timely manner
o Ensuring that applicable USAC forms are filled out completely, accurately and timely
o Maintaining records of E-rate supported hardware provided to the AUTHORITY with detailed information for each item and made available to the AUTHORITY in an electronic format

5.1.5.12 Category One Data Transmission Requirements
The AREN Consortium service provider must adhere to FCC requirements for Category One Data Transmission and/or Internet Access Service.

The following presents the E-rate Mandatory requirements for the Category One Data Transmission and/or Internet access service and Category Two Internal Connections and Managed Internal Broadband service offerings. The PROPOSER must provide an "acknowledge and will comply" statement for the following:

• To be eligible for Schools and Libraries Program support, eligibility is based on criteria established by statute and Federal Communications Commission (FCC) rules. Eligibility for support requires not only that the product or service is eligible, but that it is put to an eligible use and that it is used by an eligible school or library entity at an eligible location. The AREN Consortium service provider should comply with FCC eligibility requirements for its service solution. The FCC Eligible Services List (ESL) shall be used for the products and services that can receive funding and the acceptable uses for those products and services.

To ensure that E-rate applicants make cost-effective purchasing decisions, service providers must charge eligible schools, libraries, and consortia the Lowest Corresponding Price (LCP) when providing E-rate services.

• Support for E-rate eligible services that includes charges for On-Premise Category One Equipment/Hardware must meet the eligibility requirements as listed on USAC’s website.

• Responsibility for maintaining the equipment rests with the AREN Consortium service provider and not the AUTHORITY or any of the schools or libraries that make up the AREN Consortium.
• The Local Area Network of the AREN Consortium school or library is functional without dependence on the equipment. The PROPOSER is responsible for knowing the applicable E-rate rules and following them as related to On-Premise Category One equipment.

• Ownership of the equipment will not transfer to the AUTHORITY or any of the schools or libraries that make up the AREN Consortium in the future.

• The equipment will not be used by the AUTHORITY or the AREN Consortium school or library for any purposes other than receipt of the eligible Telecommunications or Internet Access service of which it is a part.

5.1.5.13 Category Two Internal Connections and Managed Internal Broadband Services

The AUTHORITY is not currently providing and or filing for Category Two services, however the AUTHORITY reserves the right to do so during the contract period.

5.1.5.14 E-rate Understanding and Approach

The PROPOSER must provide an explanation of its full understanding of the E-rate funding process and commitment to comply with USAC rules. Describe experience and qualifications of compiling an E-rate consortium application similar to the AREN Consortium.

Indicate any issues or concerns that may affect the overall ability of your organization to provide for a successful, E-rate compliant Category One Data Transmission and/or Internet Access service or Category Two Internal Connections and Managed Internal Broadband services offering and specify your proposed solution for overcoming these issues or concerns.

5.1.6 Transition Plan

The PROPOSER must provide a detailed plan for transitioning to its proposed AREN configuration if it is awarded the Contract. This plan must include the following information for each major subsection in 5.1:

• Migrating from the current configuration to the proposed configuration.
• Identify concerns and risk areas involved with the transition.
• Address any necessary and/or helpful actions clients can take to ensure a smooth and successful transition.

This Transition Plan must be aggregated with plans from all other sections when responding to the Section 8 Transition Management. There is no need to provide it separately in response to this section.
5.2 Datacenter Services

5.2.1 General Overview

The AUTHORITY maintains a datacenter environment at the Alabama Supercomputer Center in Huntsville, AL. The PROPOSER must use this space to provide various Datacenter Services described in this section.

For the purposes of providing Datacenter Services and HPC Services (detailed in a later section), the AUTHORITY will provide to the selected PROPOSER up to 3,100 square feet of datacenter floor space at the Alabama Supercomputer Center.

The AUTHORITY will provide reasonable power to each rack/cabinet that the PROPOSER requires to provide Datacenter Services.

The PROPOSER must respond to all subsections of 5.2 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.2.2 SOC 2 Type 2 Requirement

The PROPOSER must maintain SOC 2 Type 2 compliance for the duration of the Contract. This will require the PROPOSER to contract a third-party to review its System and Organizational Controls and produce a report annually.

The PROPOSER must specify which member of their staff will be responsible for maintaining this requirement.

5.2.2.1 Quarterly Compliance Checklist Report

The PROPOSER must provide a quarterly Compliance Checklist to the AUTHORITY demonstrating that all SOC 2 Type 2 requirements for the reported period have been completed.

5.2.3 Managed Hosting Service

The PROPOSER must provide a hosting service at the ASC where all client’s equipment will be housed either in a client-provided cabinet or a PROPOSER-provided cabinet as specified below.
The **PROPOSER** must supply and maintain cabinet(s), power infrastructure within the cabinet(s), and/or network infrastructure to match client specifications.

The **PROPOSER** must also accept communication from Managed Hosting Service clients and work with them to coordinate site visits to maintain/add/remove equipment from the datacenter environment. The **PROPOSER** will be responsible for understanding the **AUTHORITY’S** access policies for the datacenter and ensuring that all guests abide by those policies while they are on-site. This includes the responsibility of escorting guests and assisting them with sign-in/sign-out procedures.

5.2.3.1 Network Access

Network Access requirements for Datacenter Services will be defined in Section 5.1.1.1 Managed Internet Access Service.

5.2.3.2 Power Requirements

The **AUTHORITY** prefers that the **PROPOSER** use power distribution that connects to the datacenter power infrastructure using an L6-30 connector type. The **PROPOSER** must list any deviations from this preference, with justification, in the Understanding and Approach section below.

5.2.3.3 Client List

The **PROPOSER** will provide Managed Hosting Services to **AUTHORITY** clients as described in Reference Table 10.5.6 Managed Hosting Services attachment provided with the RFP.

5.2.3.4 Understanding and Approach

The **PROPOSER** must respond to this section with a detailed description of its Managed Hosting Service. This description must demonstrate the **PROPOSER’S** understanding of how to design, deploy, manage, and maintain a solution to meet the requirements of Section 5.2.3.

This description must include a list of power connections (w/connector type) the **PROPOSER** will require at ASC to provide these services.

5.2.4 General Requirements

The following sections detail requirements that apply to all services listed in Section 5.2.

The **PROPOSER** must respond to all subsections of 5.2.4 with separate “acknowledge and will comply” statements.
5.2.4.1 Service Availability

The average monthly service availability for each Managed Hosting Service must be greater than or equal to 99.9%.

5.2.4.2 Installation and Maintenance

The PROPOSER must account for installation and maintenance costs of all hardware that is provided to meet the requirements of Section 5.2, including any necessary travel, in its response.

5.2.4.3 Hardware Failure and Replacement

The PROPOSER will be responsible for the replacement, including any necessary travel, of any failed hardware that is provided to meet the requirements of Section 5.2, at no additional cost to the AUTHORITY.

The PROPOSER must maintain a support contract or proper sparing procedure to ensure that all hardware failures can be handled without impacting performance requirements.

5.2.4.4 Security Requirements

Refer to Section 5.8 Operations Security and Business Continuity for additional security requirements.

5.2.5 Transition Plan

The PROPOSER must provide a detailed plan for transitioning to its proposed Datacenter Services configuration if it is awarded the Contract. This plan must include the following information for each major subsection in 5.2:

- Migrating from the current configuration to the proposed configuration.
- Identifying concerns and risk areas involved with the transition.
- Addressing any necessary and/or helpful actions clients can take to ensure a smooth and successful transition.

At a minimum, the Transition Plan must address the following topics:

- Migration of Client Hardware to New Cabinets/Power Infrastructure

This Transition Plan must be aggregated with plans from all other sections when responding to Section 8, Transition Management. There is no need to provide it separately in response to this section.
5.3 High Performance Computing Services

5.3.1 General Overview

The ASC hosts centralized High Performance Computing (HPC) resources including HPC application software. The current HPC PROPOSER provides HPC assistance to Alabama university researchers throughout the state.

This section will detail the current HPC resources, then list requirements of the PROPOSER to provide similar or better resources.

5.3.2 Current HPC Resources

5.3.2.1 Compute Resources

There are currently 81 nodes with varying processor type, core count, and memory capacity. Details of these nodes can be found in the following table:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Num nodes</th>
<th>Cores/Node</th>
<th>Memory/Node</th>
<th>Processor Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Login</td>
<td>3</td>
<td>12</td>
<td>16 GB</td>
<td>Ivy Bridge</td>
</tr>
<tr>
<td>Compute</td>
<td>32</td>
<td>20</td>
<td>128 GB</td>
<td>Ivy Bridge</td>
</tr>
<tr>
<td>Compute</td>
<td>8</td>
<td>36</td>
<td>128 GB</td>
<td>Broadwell</td>
</tr>
<tr>
<td>Compute</td>
<td>1</td>
<td>192</td>
<td>6 TB</td>
<td>Skylake</td>
</tr>
<tr>
<td>Compute</td>
<td>22</td>
<td>36</td>
<td>96 GB</td>
<td>Skylake</td>
</tr>
<tr>
<td>Compute</td>
<td>11</td>
<td>128</td>
<td>1 TB</td>
<td>Milan</td>
</tr>
<tr>
<td>Compute</td>
<td>1</td>
<td>24</td>
<td>128 GB</td>
<td>Haswell + P100</td>
</tr>
<tr>
<td>Compute</td>
<td>1</td>
<td>24</td>
<td>128 GB</td>
<td>Broadwell + V100</td>
</tr>
<tr>
<td>Compute</td>
<td>2</td>
<td>128</td>
<td>1 TB</td>
<td>Milan + A100</td>
</tr>
<tr>
<td>Totals</td>
<td>81</td>
<td>3660</td>
<td>26.536 TB</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 – HPC Node, Processor, and Memory Resources

Four (4) of the eighty-one (81) nodes listed above also have GPU resources installed. Details of these nodes can be found in the following table:

<table>
<thead>
<tr>
<th># of Nodes</th>
<th>GPU Type</th>
<th>GPU Count / Node</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>NVIDIA A100 40GB SXM4</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>NVIDIA V100 32GB PCIe (no NVLink)</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>NVIDIA P100 16GB PCIe (no NVLink)</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2 – HPC GPU Detail

5.3.2.2 Current Storage
Each physical node contains internal storage capacity for the operating system, local logs, and local temporary use space (for operational purposes, not for user applications).

In addition to local storage, there are high performance parallel shared filesystems visible to all login nodes and compute nodes. These filesystems provide shared storage for purposes such as:

- User home directories
- Shared directories for research groups or classes
- Applications software
- User-requested public data (e.g., genomes)
- Locally written scripts for system administration and user convenience
- A shared scratch area for short duration uses

5.3.2.3 Current External Network

All HPC resources are currently protected by a firewall with 2x10-gig connectivity to the AREN Service Platform node at the ASC. This firewall supports a maximum IMIX throughput of 5Gbps.

5.3.2.4 Current Queues

The current Queue System is designed to allow efficient use of HPC resources. Special queues that may be unique to this environment are as follows:

Class Queue – This queue has dedicated resources that are set aside each semester for temporary student accounts. This allows for homework assignments and other jobs related to educational courses to run without waiting on potentially long research jobs to complete.

GPU Queue – This queue has dedicated access to most of the GPU resources, so they are not wasted by jobs that are only using standard processors.

Special Queue – This queue is used when a researcher must do exceptionally large work. To get access, the researcher must submit a description of the work and time complexity estimate of the resource needs and then obtain approval. Once approved, the researcher has access for up to six months. Only one job may run in this queue at any given time.

5.3.2.5 Current Software

The Current Software in use is a mix of software provided by the Current PROPOSER and additional software provided by users of the system. The list of all software packages is given in the Reference Table 10.5.7 HPC Software attachment provided with the RFP.
5.3.2.6 Current Users

The bulk of the usage of the HPC systems comes from the research universities in Alabama, but there are occasional requests from commercial HPC customers. At present, there are roughly 1000 accounts on the HPC systems.

5.3.3 HPC Requirements

The PROPOSER must respond to all subsections of 5.3.3 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.3.3.1 Location and Connectivity

The proposed HPC configuration must be physically located at the ASC.

For the purposes of providing Datacenter Services and HPC Services, the AUTHORITY will provide to the selected PROPOSER up to 3,100 square feet of datacenter floor space at the ASC.

The PROPOSER must provide connectivity to the AREN Service Platform Node at the ASC from the HPC resources. For security purposes, this connection should be a bottleneck for all communication to/from the HPC resources.

5.3.3.2 Required Resources

The PROPOSER must provide HPC resources that meet and/or exceed the current HPC resources as detailed in Section 5.3.2. The proposed configuration should include maintenance support through the end of the Contract.

The PROPOSER must provide a minimum of 1 PB of storage, of which, at least 250 TB should be dedicated for use as scratch space. This storage must be capable of handling very heavy metadata loads to support applications such as Trinity and dlinkmap. The PROPOSER must detail the IOPS capabilities of all storage systems provided.

The PROPOSER must provide a disk quota system that governs storage usage for each user.

5.3.3.3 Required Infrastructure
The **AUTHORITY** will provide A+B power feeds, with battery and generator backup for each cabinet required for the **PROPOSER’S** proposed configuration. Aside from these power feeds, the **PROPOSER** is responsible for all other infrastructure required to design, deploy, maintain, and manage the HPC resources. The **PROPOSER’S** responsibility includes, but is not limited to the following infrastructure:

- Power distribution
- Cabinets
- Login Node(s)
- Network Security Device(s)
- Network Routers, Firewalls, and/or Switches
- Monitoring and/or Fault Detection Services
- Authentication Services
- License Management
- Log Management

The **PROPOSER** must also provide a queue system with basic multi-level priority queues as well as the queues specified in Section 5.3.2.4. The **PROPOSER’S** queue system must also be capable of providing the following features:

- Permit a wide variety of jobs to be submitted with minimal wasted resources.
- A Fairshare scheduling algorithm or equivalent capability.
- Scheduling to multiple clusters, chip architectures, and GPU types.
- Permit a single node to fall into multiple scheduling groups.
- Software license counting.
- Access Control Lists to limit access for some queues to a list of designated users.

5.3.3.4 Required Software

The **PROPOSER** must provide and support HPC software as listed in the Reference Table 10.5.7 HPC Software attachment provided with the RFP.

The **PROPOSER** will assume responsibility for the portability and support of existing software and bear the cost of any conversion. Support includes acquiring licenses, maintaining the software, and applying revisions to the software.

5.3.3.5 HPC Operation and Support

5.3.3.5.1 Account Administration

The **PROPOSER** must create and maintain an Account Administration procedure that enforces **AUTHORITY** policy regarding who is permitted access to HPC resources and for how long.
Only PROPOSER staff with a need for access to provide system and/or user support will be approved for general access. All other users must have AUTHORITY approval before an account is created.

The PROPOSER must provide the following services as part of Account Administration:

- Receive applications from the AUTHORITY requesting HPC access for specific clients/users.
- Forward applications to the AUTHORITY once they are confirmed to be complete and valid.
- Add users once they receive AUTHORITY approval.
- Warn users if account approval is about to expire.
- Disable users immediately when account approval expires.
- Delete users whose account remains expired beyond a limit established by PROPOSER and authorized by the AUTHORITY.
- Assist users with forgotten passwords.
- Handling user requests for credit due to system failures (charge backs).

5.3.3.5.2 Client Resource Accounting

The PROPOSER must maintain client resource accounting information for the following purposes:

- Allocate machine use equitably between clients.
- Allow clients to monitor and track their machine use.
- Prevent clients who have exceeded their use quota from signing on.
- Provide usage data and information as needed by the AUTHORITY.

5.3.3.5.3 System Support

The PROPOSER must provide the following HPC System Support Services:

- System Software Updates
- Configuration Management of Hardware and Software
- System Change Control
- System Recovery and Backup
- Testing and Validation of Hardware/Software changes
- Capacity Management
- Performance Monitoring
- Management of Proper Security Protection for all hardware and systems software in place.

5.3.3.5.4 User Support

One of the key ingredients for this project’s success over the past 30 years has been timely, effective, and competent client assistance. The PROPOSER must help the AUTHORITY maintain a good reputation in the research community and provide the following User Support Services:
Documentation

- Provide on-line tutorials to help new clients get started without waiting for an interactive training session.
- Maintain and update a library of user manuals (PROPOSER supplied and manufacturer supplied) on the AUTHORITY’S website. This library should contain documentation to assist users with all aspects of their interaction with the PROPOSER’S HPC environment.

Training and Relationship Building

- Conduct interactive training sessions covering the following topics:
  - Supercomputer Orientation
  - Conversion and Optimization
  - Training on Specific High-Demand Applications
- Travel on-site to visit user organizations as needed or desired by the AUTHORITY.
- Engage with clients and potential clients to promote the use of AUTHORITY HPC resources.

5.3.3.6 Reports

At a minimum, the PROPOSER must provide the following HPC reports:

- Quarterly Usage Summary:
  - Date of the period being reported must be on all pages of the report.
  - Broken down by organization, show the following information:
    - Number of Users
    - Dedicated Hours Used
    - GPU Hours Used
    - Memory Hours Used
    - Sum of Dedicated/GPU/Memory Hours Used
    - Percent Utilization by Organization
- Monthly Status Report
  - Date of the period being reported must be on all pages of the report.
  - List recent software installs and other changes in the reported period.
  - List upcoming changes in the next period.
  - Identify the top five most frequent user support questions during the reported period.

5.3.3.7 General Requirements

The following sections detail requirements that apply to all services listed in Section 5.3.

The PROPOSER must respond to all subsections of 5.3.3.7 with separate “acknowledge and will comply” statements.

5.3.3.7.1 Installation and Maintenance
The **PROPOSER** must account for installation and maintenance costs of all hardware that is provided to meet the requirements of Section 5.3, including any necessary travel, in its response.

5.3.3.7.2 Hardware Failure and Replacement

The **PROPOSER** will be responsible for the replacement, including any necessary travel, of any failed hardware that is provided to meet the requirements of Section 5.3, at no additional cost to the **AUTHORITY**.

5.3.3.7.3 Security Requirements

The **PROPOSER** must ensure that multifactor authentication is used to govern access to all HPC resources.

Refer to Section 5.8 Operations Security and Business Continuity for additional security requirements.

5.3.3.8 Understanding and Approach

The **PROPOSER** must respond to this section with a detailed description of its proposed HPC solution and related services. This description must demonstrate the **PROPOSER’S** understanding of how to design, deploy, manage, and maintain a solution to meet the stated requirements. This description must also contain the following information:

- Network Diagram showing all HPC resources and connectivity (including bandwidth).
- Storage System details
  - Manufacturer/Model of any COTS storage solution(s) used.
  - List of file system(s) used.
  - IOPS capability of each filesystem.
  - Capability of quota system.
- Queue System Capabilities
- Power Requirements
  - Count and Type of Each Circuit.
  - Any other detail necessary to ensure the ASC is properly prepared and able to support **PROPOSER’S** solution.
- Staffing to meet labor requirements.
- Detail of on-line tutorial(s), with sample screenshots, that will be made available to clients.

5.3.4 Transition Plan
The **PROPOSER** must provide a detailed plan for transitioning to its proposed Datacenter Services configuration should it be awarded the Contract. This plan must include the following information for each major subsection in 5.3:

- Migrating from the current configuration to the proposed configuration.
- Identify concerns and risk areas involved with the transition.
- Address any necessary and/or helpful actions clients can take to ensure a smooth and successful transition.

At a minimum, the Transition Plan must address the following topics:

- Migration of Existing HPC Users
- Migration of Existing Jobs
- Implementation of Client-Provided Software

This Transition Plan must be aggregated with plans from all other sections when responding to Section 8 Transition Management. There is no need to provide it separately in response to this section.
5.4 Security Operations Center (SOC)

The AUTHORITY provides a wide variety of security resources and consulting to K12 Systems, and Libraries in Alabama through its SOC. These services are available independent of AREN or any other ASA Services.

The primary purpose of the SOC is to detect and respond to security events and security incidents, defined as follows:

- **Security Event**: Any detectible or discernable occurrence that has significance for the security of data or infrastructure.
- **Security Incident**: A single unplanned occurrence that degrades or breeches the security of data or infrastructure.

A secondary purpose of the SOC is preventing security events and incidents by assisting clients with the understanding and design of security best practices they can implement in their environments.

Most of these services are provided to AREN Managed Internet Service and Managed Firewall Service clients. For the purposes of this section, it can be assumed that the infrastructure matches that provided by the PROPOSER for AREN-related services. However, there will be clients who manage/provide their own infrastructure and the PROPOSER must address how it can adapt to provide SOC services to these clients in its response to the Understanding and Approach section that follows.

This section will provide PROPOSER requirements to design, deploy, manage, and maintain SOC services. These requirements are organized into the following topics:

- SOC Scope
- Data Collection
- Data Analysis
- Mitigation and Remediation
- Knowledge Base for Clients
- Security Consulting

The PROPOSER must respond to all subsections of 5.4 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.
5.4.1 SOC Scope

The SOC manages the network-related security of all devices connected to a client’s network. Priority is given to the protection of critical information and infrastructure required for the client to conduct business.

The SOC does NOT manage physical security needs, but it does respond to client requests to share knowledge of best practices and other information helpful to designing their physical security solution(s).

The PROPOSER must provide SOC Services as described in Section 5.4 to all clients shown to require them in the Reference Table 10.5.1 AREN Services List attachment provided with the RFP.

5.4.2 Data Collection

The PROPOSER must provide infrastructure and labor to enable and manage the collection of security-related data.

The PROPOSER must maintain all SOC-related data for a period of no less than six months.

This data includes, but is not limited to the following:

- Government and Industry Notifications and Advisories
  - The PROPOSER must proactively identify and take necessary steps to receive notifications, advisories, bulletins, and/or other information from Government and Industry sources related to the infrastructure being managed.

- PROPOSER Security Notifications for Network Infrastructure
  - The PROPOSER must receive security bulletins and notifications from network infrastructure manufacturers as soon as they are released.

- Firewall Syslog and Flow Data
  - The PROPOSER must be able to receive and process syslog and flow data from client firewalls.
  - For firewalls it manages as part of the AREN Managed Firewall Service, the PROPOSER must configure the firewalls to deliver this data.
  - For client-managed firewalls, the PROPOSER must provide support to the client to assist with configuration to deliver this data.

- Threat Detection and Known Vulnerability Detection Data
  - The PROPOSER must be able to receive and process Threat Detection and Known Vulnerability Detection Data from client firewalls.
  - For firewalls it manages as part of the AREN Managed Firewall Service, the PROPOSER must configure the firewalls to deliver this data.
For client-managed firewalls, the PROPOSER must provide support to the client to assist with configuration to deliver this data.

- **Vulnerability Tests**
  - The PROPOSER must conduct monthly vulnerability tests and integrate the results into its SOC data collection process.
  - These tests should be external and uncredentialed, to mirror connectivity permitted to client infrastructure from the Internet.

- **Firewall Configuration Audits**
  - The PROPOSER must conduct an annual configuration audit of each of the AUTHORITY managed firewalls and integrate the results into its SOC data collection process.
  - These audits should identify configuration that violates security best-practices as well as configuration that is old and no longer necessary.
  - Each audit must be summarized and sent to the respective client.

### 5.4.3 Data Analysis

The PROPOSER must analyze data collected by the SOC and be able to identify security-related events and incidents quickly.

The PROPOSER must use a trouble tracking system to manage all identified security-related events and incidents.

### 5.4.4 Mitigation and Remediation

The PROPOSER must develop and present a procedure for responding to security-related events and incidents. This procedure should appropriately address the response for all occurrences, big or small.

**Security Incidents**
The PROPOSER must promptly make changes to devices that it manages to mitigate, remediate, and/or prevent future occurrences of any detected security incidents.

The PROPOSER must communicate the detection of security incidents to the AUTHORITY and to impacted client(s) immediately.

**Security Events**
The PROPOSER must respond to security events by planning the appropriate response and communicating it to the AUTHORITY and impacted client(s). Should OS updates or other service-impacting solutions be required to PROPOSER-managed equipment, the PROPOSER will be responsible for properly planning and executing maintenance windows as necessary to mitigate or resolve the event.
Client Follow-up
The PROPOSER must communicate required actions to clients when mitigation and/or remediation is required on client-managed equipment. The PROPOSER must maintain documentation of all open issues that require client actions.

5.4.5 Knowledge Base for Clients

The PROPOSER must describe its vision for engaging the clients with educational resources, tools, and best practice information related to cybersecurity that the clients can use for self-improvement.

5.4.6 Security Consulting

The PROPOSER must provide Security Consulting Services to clients when such services are requested by the AUTHORITY.

The PROPOSER’S SOC personnel must be prepared and capable of assisting clients with the following tasks on an ad-hoc basis:

- Network Security Configuration Assistance
- Servers/Endpoints Configuration Assistance
- Backup Solutions

5.4.6.1 Network Security Configuration Assistance

- Device Review/Configuration following security best-practices
  - Routers
  - Switches
  - Firewalls
  - Wireless Controllers and APs
  - Other devices
- Network Segmentation to Improve Security Posture

5.4.6.2 Servers/Endpoints Configuration Assistance

- Patch Management
- System Hardening
- Centralized Configuration Management
  - Authorization
  - Standardization of OS and Applications
5.4.6.3 Backup Solutions

- Identifying Data and Services to Backup
- Develop Strategy for Backup Frequency
- Protecting Backups from Malware, Ransomware, etc.

5.4.7 Reports

The **PROPOSER** must provide the following reports to the **AUTHORITY** as a part of its SOC service:

- Weekly report listing all security incident tickets with the following detail:
  - Date of the period being reported must be on all pages of the report.
  - Ticket Number
  - List Impacted Clients and Systems
  - Resolution

- Quarterly Intrusion Detection report with the following detail:
  - Date of the period being reported must be on all pages of the report.
  - Summarization of security violations and identified intrusion attempts
  - List recommended remedies and solutions to be evaluated and potentially implemented to prevent future incidents
  - Summarization by client that can be delivered to the client at the **AUTHORITY’S** discretion.

- Quarterly vulnerability scan/report for Contract infrastructure.
  - Date of the period being reported must be on all pages of the report.
  - Prioritized list of security vulnerabilities detected
  - List remedies for each vulnerability to be evaluated and potentially implemented
  - Summarization by client that can be delivered to the client at the **AUTHORITY’S** discretion.

5.4.8 Understanding and Approach

The **PROPOSER** must respond to this section with a detailed description of its SOC Service. This description should demonstrate the **PROPOSER’S** understanding of how to design, deploy, manage, and maintain a solution to meet the stated requirements.

5.4.9 General Requirements

The following sections detail requirements that apply to all services listed in Section 5.4.

The **PROPOSER** must respond to all subsections of 5.4.9 with separate “acknowledge and will comply” statements.
5.4.9.1 Installation and Maintenance

The PROPOSER must account for Installation and Maintenance costs of all hardware that is provided to meet the requirements of Section 5.4, including any necessary travel, in its response.

5.4.9.2 Hardware Failure and Replacement

The PROPOSER will be responsible for the replacement, including any necessary travel, of any failed hardware that is provided to meet the requirements of Section 5.4, at no additional cost to the AUTHORITY.

5.4.9.3 Security Requirements

Refer to Section 5.8 Operations Security and Business Continuity for additional security requirements.

5.4.10 Transition Plan

The PROPOSER must provide a detailed plan for transitioning to its proposed SOC configuration should it be awarded the Contract. This must include the following information for each subsection in 5.4:

- Migrating from the current configuration to the proposed configuration.
- Identify concerns and risk areas involved with the transition.
- Address any necessary and/or helpful actions clients can take to ensure a smooth and successful transition.

This Transition Plan must be aggregated with plans from all other sections when responding to Section 8 Transition Management. There is no need to provide it separately in response to this section.
5.5 Applications Development Services

5.5.1 General Overview

The AUTHORITY maintains multiple software development projects for its clients that the PROPOSER must support. These projects range in size, complexity, and technology. It is important that the PROPOSER has diversely talented staff and a robust development system so that it is able to step in and continue work on each project with minimal interruption.

The PROPOSER must respond to all subsections of 5.5 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

Refer to Reference Table 10.5.8 AppDev Project List (“Project List”) attachment provided with the RFP for a detailed list of all projects that the following requirements are addressed to.

5.5.2 Current and Future Projects

The PROPOSER must commit to continue development and support for all projects in the Project List, including meeting all stated Special Requirements listed below.

The PROPOSER must also commit to negotiate approval of new application development opportunities identified during the Contract term with the AUTHORITY.

5.5.3 Development Environments

The PROPOSER must describe in detail which development platform(s) it intends to use in its response to the Understanding and Approach section below.

If the PROPOSER chooses to host a development platform at the ASC, the AUTHORITY will provide power and space within reason. The PROPOSER will be responsible for device cabinet(s), power distribution, and network connectivity to AREN. All resources located at the ASC must be dedicated to supporting the AUTHORITY. The PROPOSER must provide detail of all space and power requirements for any use of AUTHORITY-provided datacenter space.

The PROPOSER must ensure that all access to the development environment is properly secured to prevent data and/or user credentials from being learned by any unauthorized party.
5.5.4 Handling of Sensitive Information

Many of the projects (current and future) will require handling and storage of Personal Identifiable Information and other sensitive data belonging to the AUTHORITY’S clients and their users. The PROPOSER must demonstrate that it understands the requirements that come with handling and storing this data and share its plan for safeguarding this information in its response to the Understanding and Approach section below.

5.5.5 Support Services

Most, if not all projects have a 24x7x365 operational aspect to them that the PROPOSER must maintain as described in this section.

5.5.5.1 Client Support

The PROPOSER must receive and respond to support requests from the clients. These requests may be asking for help using the software, identifying a problem with the software, or requesting a new feature. Each request must be tracked until the requests are satisfied or closure is authorized by the AUTHORITY.

The PROPOSER’S Client Support must be available 24x7x365. Initial contact may be managed by a non-Applications Development Helpdesk (e.g., the AREN Helpdesk), but a member of the Applications Development staff must be available to receive and respond to requests during business hours (8am-5pm CT, except Alabama state holidays) and outside these business hours should a client report a critical situation that requires immediate attention.

The PROPOSER must alert the AUTHORITY if it receives a request that will require an increase in staffing to properly address.

5.5.5.2 Infrastructure Support

In addition to client support, the PROPOSER must also provide 24x7x365 support for all infrastructure and services required to maintain the proper operation of each project.

5.5.6 User Helpdesk Services

While most projects will require Helpdesk Services to field requests and trouble reports from the client who commissioned the project, there are a few projects that require Helpdesk Services to receive and respond to support requests from the client’s users. These projects are identified with the designation "Client + User Support" in the Project List under the column “Helpdesk Requirements”.

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For projects that require Helpdesk Services, the **PROPOSER** must provide a knowledgeable Helpdesk that meets the same requirements specified in Section 5.1.3.2 NOC and Helpdesk, with the exceptions of the On-Site Staff Requirements and Workload.

The **PROPOSER** may choose to combine Helpdesk Services for this section and for the AREN section.

### 5.5.7 Staffing Requirements

The **PROPOSER** must provide staffing sufficient to handle the workload requirements as specified for each project in the Project List. This workload must include all support aspects, including designated Helpdesk and Special Requirements tasks.

The **PROPOSER** and its staff may be required to participate in routine (usually annual) security training as required by the **AUTHORITY’S** clients and their policies regarding access to their sensitive data.

### 5.5.8 OneASA (the **AUTHORITY’S** Business Operations Tool)

One of the projects the **PROPOSER** will be responsible for is the **AUTHORITY’S** business operations tool, titled ‘OneASA’. This project will have special requirements because it may need to be adapted to fit the **PROPOSER’S** workflows, staff, and specific aspects of the **PROPOSER’S** services. As permitted in the Business Operations section of this RFP, the **PROPOSER** may also choose to adapt OneASA to integrate with a third-party tool of the **PROPOSER’S** choice.

The **PROPOSER** must prepare a response delivered in the Understanding and Approach section below that explains its vision for how it will use/adapt OneASA.

### 5.5.9 Reports

The **PROPOSER** must provide routine reports for each project in the Project List on a quarterly basis. These reports must include the following information:

- Date of the period being reported must be on all pages of the report.
- General overview of the project.
- Accomplishments since the last report.
- Activity since the last report (meetings, conferences, etc.).
- Open issues
  - List any roadblocks external to the **PROPOSER**.
  - Issues currently being worked by **PROPOSER**.
- Goals/Objectives and associated timeline.
- Level of Effort assigned to the project during the period reported, and for the upcoming period.
- New Requests and/or Feedback received.
The PROPOSER must provide a special quarterly report for the Alabama Virtual Library project that details several operations statistics listed below:

- Date of the period being reported must be on all pages of the report.
- AVL accounts created during the reported period.
- AVL accounts created total (from beginning of project).
- Breakdown accounts created by who created them.
  - Public Libraries/PostSecondary
    - Total Count and total by month in the reported period.
  - K12
    - Total Count and total by month in the reported period.
- Number of searches per month, broken down by PROPOSER (e.g., Britannica, EBSCO, McGraw Hill, etc.)
- AVL Site usage information (unique users per month)
- AVL Support information (number of phone calls and emails per month)

5.5.10 Understanding and Approach

The PROPOSER must respond to this section with a detailed description of its Application Development Service. This description must demonstrate the PROPOSER’S understanding of how to design, deploy, manage, and maintain a solution to meet the requirements of each subsection of Section 5.5.

5.5.11 General Requirements

The following sections detail requirements that apply to all services listed in Section 5.5.

The PROPOSER must respond to all subsections of 5.5.11 with separate “acknowledge and will comply” statements.

5.5.11.1 Installation and Maintenance

The PROPOSER must account for installation and maintenance costs of all hardware that is provided to meet the requirements of Section 5.5, including any necessary travel, in its response.

5.5.11.2 Hardware Failure and Replacement

The PROPOSER will be responsible for the replacement, including any necessary travel, of any failed hardware that is provided to meet the requirements of Section 5.5, at no additional cost to the AUTHORITY.

5.5.11.3 Security Requirements
Refer to Section 5.8 Operations Security and Business Continuity for additional security requirements.

5.5.12 Transition Plan

The PROPOSER must provide a detailed plan for transitioning to its proposed Application Development Service if it is awarded the Contract. This plan must include the following information for each major subsection in 5.5:

- Migrating from the current configuration to the proposed configuration.
- Identify concerns and risk areas involved with the transition.
- Address any necessary and/or helpful actions clients can take to ensure a smooth and successful transition.

At a minimum, the Transition Plan must address the following topics:

- Knowledge transfer requirements to successfully assume responsibility of projects from Incumbent PROPOSER.

This Transition Plan must be aggregated with plans from all other sections when responding to Section 8 Transition Management. There is no need to provide it separately in response to this section.

As part of the Transition Plan, the PROPOSER must have appropriate staff available no later than January 1, 2023, to begin knowledge transfer tasks required for a smooth transition. It will be the PROPOSER’S responsibility to use the period between January 1, 2023, and June 30, 2023, to obtain all necessary information from the incumbent PROPOSER’S staff ahead of assuming responsibility for the projects on July 1, 2023.
5.6 Additional Services

The following services are either too simplistic to require their own major section, or they relate to multiple major sections listed above.

5.6.1 Emerging Technology Support

The PROPOSER must position itself to learn and stay engaged with emerging technology topics during the term of the Contract. When an emerging technology could be used to improve or augment any service that is part of the Contract, the PROPOSER will promptly notify the AUTHORITY.

This requirement will extend to cover AUTHORITY-identified topics that the AUTHORITY believes could be used to improve or expand the services it offers.

5.6.2 Telephone System

The PROPOSER must provide a Voice over Internet Protocol (VoIP) from Zoom to satisfy all telephony requirements for operations and PROPOSER personnel during the Contract term. In addition, the PROPOSER will extend this VoIP system to include AUTHORITY employees located at the ASC and the Montgomery Business Office.

The AUTHORITY will provide phone numbers for the PROPOSER to use (800-338-8320, 256-971-74XX for Huntsville, 334-659-XXXX for Montgomery). All client-facing telephone numbers must be from one of these pools.

The PROPOSER’S VoIP system should meet the following requirements:

- A minimum of 20 physical desk phones to be used by AUTHORITY personnel and in common areas used by multiple staff in Huntsville and Montgomery.
- Desk phones should support the following:
  - Multiple lines
  - Conferencing multiple lines together
  - Placing a call on hold
- A minimum of three door/elevator phones must be provided. These connect a user to a pre-programmed extension on speaker phone when a button is pressed.
- A minimum of eight ATA ports at the ASC for connecting pre-existing analog phones into the system.
- Unlimited calling within the United States
- All VoIP system users should have voicemail.
• All VoIP system users should have the ability to make and receive calls from their mobile devices without disclosing their personal phone numbers to clients.
• Calls to the Helpdesk must be able to reach any available support staff member without going to voicemail.
• Calls to the Helpdesk that cannot be answered immediately (no support staff available) must notify users and give them the option of remaining in queue or leaving voicemail.
• All Helpdesk staff and immediate management staff must be able to easily determine when calls are waiting in queue and when unread Helpdesk voicemail is waiting.
• The PROPOSER must be able to track how long callers remain in queue before being answered.
• The PROPOSER must provide its plan for ensuring call quality in its response.

The PROPOSER must respond to this section with the manufacturer, model, and other related details of the proposed VoIP system and detail how it meets each of the above requirements.

The PROPOSER must provide two POTS lines (analog phone lines from the telephone company) at the ASC facility. These two lines must be completely independent from the VoIP system.

The PROPOSER must respond to this section with an “acknowledge and will comply” statement, followed by a detailed description of the PROPOSER’S approach to implementing, operating, and maintaining the VoIP system.

This approach must include the PROPOSER’S approach for reporting the quality of service delivered to the AUTHORITY.

5.6.3 Video Conferencing Services

The PROPOSER must provide a Video Conferencing Services to satisfy all support requirements for operations and PROPOSER personnel during the Contract. In addition, the PROPOSER will extend this Video Conferencing System to include AUTHORITY employees located at the ASC and the Montgomery Business Office and AUTHORITY clients participating in Virtual Field Trips.

The PROPOSER’S Video Conferencing System should meet the following requirements:
• Service quality should be sufficient that users are able to conduct meetings without interruption.
• Service should support a minimum of 100 users per call.
• A minimum of 15 users are required for AUTHORITY personnel in Huntsville and Montgomery. Each user should be able to host a separate call simultaneously.
• Service should support up to 20 H.323 Video Conference rooms.
• Users should be able to participate in conferences via telephone (without video), mobile phone, tablet, or computer.
- **AUTHORITY** personnel must be trained and permitted to setup and use the conferencing system directly.

The **PROPOSER** must respond to this section with the manufacturer, model, and other related details of the proposed Video Conferencing System and detail how it meets each of the above requirements.

The **PROPOSER** must support Virtual Field Trips as directed by the **AUTHORITY** as it partners with the state’s ACCESS Virtual Learning program. This support will involve the following tasks:
- Receive schedule of field trips from ACCESS.
- Setup calls in the Video Conferencing system provided by the **PROPOSER**.
- Monitor each field trip and quickly respond/provide assistance to resolve technical difficulties.

On average, there are twenty (20) Virtual Field Trips that the **PROPOSER** must support per month.

The **PROPOSER** must respond to this section with an “acknowledge and will comply” statement, followed by a detailed description of the **PROPOSER**’s approach to implementing, operating, and maintaining the Video Conferencing System.

### 5.6.4 Conference Trade Show Service

The **PROPOSER** must provide registration, coordination, staffing, presentation, and training services in support of the **AUTHORITY** participating in conferences and trade shows.

The **PROPOSER** must provide Conference/Trade show services for the conferences listed in Reference Table 10.5.9 Conference/Trade Show in the attachment provided with the RFP. This should include all expenses, travel and otherwise, for the **PROPOSER** to support and have two staff members in attendance for each conference/trade show.

The **AUTHORITY** may require the **PROPOSER** to design and provide promotional materials, table displays, and/or an exhibit booth for some conferences.

The **PROPOSER** must respond to this section with an “acknowledge and will comply” statement.

### 5.6.5 AUTHORITY Support Services

The **AUTHORITY** requires the following support services be provided directly to its offices and personnel.

The **PROPOSER** must respond to all subsections of 5.6.5 with separate “acknowledge and will comply” statements.

#### 5.6.5.1 ARIN Resource Management
The **PROPOSER** must create accounts with the American Registry for Internet Numbers (ARIN) and the Routing Assets Database (RADb) to administer and maintain the **AUTHORITY’S** IP Address space and Autonomous System Numbers.

The **PROPOSER** must also create and maintain @asc.edu email addresses that have been registered with ARIN and RADb and ensure that communication related to ARIN Resources is directed to the appropriate personnel.

During the outgoing transition period, the **PROPOSER** must assist the **AUTHORITY** with transitioning management of these resources to the succeeding **PROPOSER**.

### 5.6.5.2 Managed Desktop Services

The **PROPOSER** must provide Managed Desktop Services (MDS) for the **AUTHORITY**. MDS will include support of all LAN attached devices, including but not limited to desktops, laptops, mobile devices, and printers at the ASC and the Montgomery Business Office (up to 15 users total).

The **PROPOSER** must ensure all software used on each device is current (i.e., patches loaded within 30 days of release) and each device must be included in a **PROPOSER**-provided patch management platform.

The **PROPOSER’S** MDS must be included in the Security Policies and Procedures documented in response to Section 5.8 Operations Security and Business Continuity Plan.

### 5.6.5.3 Microsoft365

The **PROPOSER** must provide a minimum of 15 user licenses for Microsoft365 for the **AUTHORITY’S** use. These licenses must allow **AUTHORITY** personnel to use Microsoft Office applications on their compute devices while not connected to the Internet.

The **PROPOSER** must configure Microsoft365 to support the receipt and delivery of email to/from the **AUTHORITY’S** asc.edu domain.

The **PROPOSER** must configure Microsoft365 to use a single-sign-on (SSO) configuration such that users who login to a Windows computing environment do not need to login a second time to utilize Microsoft365 services.
5.7 ASA Business Operations

It may become necessary, during the Contract, to provide new services and/or update existing services. Whether it is taking advantage of new technology or new demands, the AUTHORITY, and therefore the CONTRACTOR, must be flexible. The following requirements relate to the AUTHORITY’S Business Operations practices that the CONTRACTOR must follow and cooperate with:

The PROPOSER must respond to all subsections of 5.7 with separate “acknowledge and will comply” statements.

5.7.1 OneASA Business Operations Tool

The AUTHORITY uses its business operations tool (OneASA) to manage contact information and services that it provides to its clients. This tool is one of the projects that the CONTRACTOR must maintain and improve as part of the Application Development service (described in this RFP).

The CONTRACTOR must use OneASA to receive requests for quotes, orders, and other official instruction from the AUTHORITY regarding services provided to the AUTHORITY and its clients.

The only official form of communication the AUTHORITY will accept regarding quotes and order/provisioning will be via OneASA, therefore the CONTRACTOR must ensure that its information and workflows are entered into OneASA for each task.

The CONTRACTOR must assist the AUTHORITY in ensuring that OneASA contains a complete list of all services provided to the AUTHORITY and its clients.

The CONTRACTOR must also assist the AUTHORITY in maintaining up-to-date contact information for each client in the OneASA tool.

The CONTRACTOR may use a workflow tool of its choice to manage business operations within its staff, or it may use OneASA. Regardless of what it chooses, OneASA must always have the latest information available.

With the AUTHORITY’S approval, the CONTRACTOR may make changes to OneASA to adapt the tool to its workflows or to implement a suitable API for exchanging data with another tool.

5.7.2 Quote Services

The CONTRACTOR must accept and quote Contract-related services as requested by the AUTHORITY. Once a request is received, the CONTRACTOR must provide a detailed list of all cost elements (e.g., hardware, software, transport services, and labor) required for the service. This list must be
accompanied by a description of the order and installation procedure, timeline, and any requirements for executing the service described in the quote.

Quotes must include all necessary taxes, shipping, travel, and expenses. Must include a breakdown of eligible and ineligible E-rate costs.

If dependencies for obtaining pricing are outside the control of the PROPOSER, then the CONTRACTOR must detail these dependencies to the AUTHORITY with an estimated timeline to provide a completed quote. Otherwise, completed quotes must be provided within 15 business days of the AUTHORITY’s request. Status detail must be maintained in the OneASA tool and provided to the AUTHORITY upon request.

5.7.3 Order Processing and Provisioning Services

Upon receiving approval from the AUTHORITY to execute service(s) detailed in a completed quote, the CONTRACTOR must acquire/order all parts and services related to that quote and schedule labor to provision the service(s) within 3 business days.

The CONTRACTOR must provide a timeline for each ordered service, including milestones and an estimated completion date. Status detail must be maintained in the OneASA tool and provided to the AUTHORITY upon request.
5.8 Operations Security and Business Continuity

As the Technical Services Contractor for the AUTHORITY, the PROPOSER will be responsible for providing a varied and complex set of services as described in this proposal. Each service presents its own set of challenges to maintain service during a disruptive incident. Whether the incident is caused by the intentional efforts of a bad actor, an accidental action by a staff member, or a natural disaster, the AUTHORITY needs to identify how to prevent, mitigate, and/or recover from it.

This section will combine what is traditionally seen as two separate requirements: Security and Business Continuity. Both subjects have the same goals: prevention, mitigation, and recovery.

The PROPOSER must prioritize Security and Business Continuity on the Program level. The PROPOSER must develop a plan to meet the following requirements and present that plan below in the Understanding and Approach section.

The PROPOSER must respond to all subsections of 5.8 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

5.8.1 Definitions

The following definitions apply to Section 5.8 regarding classification of data & infrastructure:

- **Critical**: Interrupts or degrades service provided to the AUTHORITY or its clients.
- **Essential**: Required for maintaining and/or ensuring service quality.
- **Non-Essential**: Any data or infrastructure not classified as Critical or Essential.

5.8.2 Basic Security Requirements

The PROPOSER must ensure that all services they provide to the AUTHORITY meet the following security and continuity requirements:

5.8.2.1 Encryption of Private Data

- Authentication credentials must be encrypted before they are communicated across any network.
• Private data belonging to the AUTHORITY, or its clients must be encrypted before it is communicated across any network.
• Remote management of any critical system (i.e. contains private data or controls/provides services to clients) that requires sending data across a network not managed by the PROPOSER or the AUTHORITY must use an encrypted VPN connection that traverses the third-party network(s).
• All VPN services must be configured to use Multi-Factor Authentication.
• Any requirement for encryption mentioned in this RFP must be met by using a modern encryption algorithm approved in NIST SP 800-140C, or any superseding document. The PROPOSER must take all necessary steps to be aware of when these standards are updated, and plan to update encryption algorithms across all infrastructure as necessary to maintain compliance with this requirement.

5.8.2.2 Management Access to Critical Systems

• Where feasible, devices should be managed using an out-of-band management network that is firewall-protected to only allow access to authorized staff.
• Where out-of-band management is not feasible, access controls should be used to only allow management access to authorized users coming from authorized networks.

5.8.2.3 Hardware/Software Security and Support

• All hardware and software utilized by the PROPOSER for the Contract must not be used to provide services beyond its published End of Support or End of Service date.
• The PROPOSER must receive PROPOSER-provided security/vulnerability related notifications for all hardware and software used to provide services to the AUTHORITY and its clients.
• The PROPOSER must implement any security-related update and/or work-around produced by its hardware, software, and service PROPOSERS in a reasonable amount of time if the update corrects an issue that could compromise the security of any service or the AUTHORITY.

5.8.2.4 Data Backup

• Offsite backups must be maintained to minimize the impact of data loss, corruption, or malicious manipulation. The PROPOSER must create and provide its schedule and retention policy for critical, essential, and non-essential data.
• Backup data must be retrievable according to the following schedule:
  o Critical data retrieved within 4 hours.
  o Essential data retrieved within 24 hours.
  o Non-essential data retrieved within one week.
• The schedule for restoring backup data will be dependent upon the situation and must be approved by the AUTHORITY.

5.8.2.5 Other Miscellaneous Requirements

• The PROPOSER must notify the AUTHORITY immediately if a security-related vulnerability or other situation exists that could impact the security of the PROPOSER, the AUTHORITY, or the AUTHORITY’S clients.
• The PROPOSER must position itself to learn and stay engaged with emerging IT security topics during the term of the Contract. When an emerging technology could be used to improve any aspect of network security for the AUTHORITY or its clients, the PROPOSER must promptly notify the AUTHORITY.

5.8.3 Operations Security and Business Continuity Plan

The Basic Security Requirements should just be the preamble to a more comprehensive and complete Security Plan that the AUTHORITY expects the PROPOSER to propose.

The PROPOSER must develop and propose its Operations Security and Business Continuity Plan for all aspects of their proposed solution. This plan must address the security of private data, critical information, and critical infrastructure. This plan must also address the recovery of critical information and infrastructure should either be lost for any reason.

5.8.4 Reports

5.8.4.1 Annual Contract Inventory Report

The PROPOSER must, at a minimum, provide the following information in an annual report to the AUTHORITY:
• Date of the period being reported must be on all pages of the report.
• Inventory of all Hardware
  o Current OS/Firmware installed.
  o Manufacturer’s End-of-Support Date and related support dates (such as End of Vulnerability/Security Support, if available).
  o Manufacturer’s recommended OS/Firmware version (if available).
• Inventory of all Software Applications (including operating systems)
  o Software Version(s) Installed.
  o Manufacturer’s End-of-Support Date and related support dates (if available).
  o Manufacturer’s recommended version (if available).
• Plan of Action to remedy hardware/software that reach the end of manufacturer support for vulnerability/security updates within or before the next 12 months.
The **PROPOSER** must provide the first instance of this report in its response to this RFP. This first report should provide information about the hardware and software that the **PROPOSER** is proposing.

### 5.8.4.2 Quarterly Backup Verification Report

The **PROPOSER** must provide evidence on a quarterly basis that backup data is current and available should it be needed.

### 5.8.5 Understanding and Approach

The **PROPOSER** must respond to this section with a detailed description of its Operations Security and Business Continuity Plan. This description should demonstrate the **PROPOSER'S** understanding of how to design, deploy, manage, and maintain a solution to meet the requirements of each sub-section of Section 5.8.
6 COST PROPOSAL

Cost Proposal

The Cost Proposal must provide a total proposed cost for completing the requirements of this RFP in US currency. Pricing information must be included in the Cost Proposal Section, pricing information must not be included in any other Section responses. Inclusion of Cost Proposal information in any other Section may result in the Proposal being rejected. Pricing will be considered the Proposers best and final price.

Cost Proposal Spreadsheet

The Cost Proposal spreadsheet contains several tables that must be completed by the PROPOSER. These tables are hierarchical in structure in that cost components have been broken up into detail tables, and then aggregated with data from other tables to generate a cost per sub-section, and eventually a final Principal Cost table that summarizes all costs proposed by the PROPOSER. Refer to the following figure for a visual representation of the hierarchical structure and flow that should be followed when entering cost data.

The rest of this section is devoted to explaining each table of the Cost Proposal.
Principal Cost

The PROPOSER must copy all data in the Principal Cost table directly from the sub-totals listed in the Sub-Section Cost table. This allows evaluators and the AUTHORITY to see a single, concise table that represents all costs associated with the PROPOSER’S proposal.

These costs are divided by year and by E-rate eligibility, as required by E-Rate.

Sub-Section Cost

The Sub-Section Cost table lists specific parts of each sub-section that have an associated cost. The PROPOSER must input cost data for Sections 5.3 HPC Services, 5.4 SOC Services, 5.5 Applications Development Services, 5.6 Additional Services, and 5.7 Operations Security and Business Continuity Plan directly into this table. All other cost data in this table should be copied from sub-totals listed in additional tables, described below.

The PROPOSER must identify any costs not captured in this table and alert the AUTHORITY immediately.

Tables 5.1 AREN Costs

Tables 5.1(a through d) define various cost elements associated with the AREN section of the RFP. Each table is described below.

Table 5.1a AREN Fixed Fees

The goal of this table is to identify a schedule of fees that account for labor and overhead costs for several services. It also lists the Wifi External and Internal AP Hardware Fees. These fees will be combined with bandwidth-dependent fees and entered into Tables 5.1c and 5.1d to show a complete cost for each related service.

The PROPOSER must use these fees when called for in Tables 5.1c-d. The PROPOSER must also commit to use the “Management” fees listed in this table for quoting any services added during the contract. For reference, when ‘labor and overhead’ are mentioned in the list below, that refers to all related costs to provide and manage the Helpdesk, NOC, AREN Service Platform, Business Operations, Operations Security, and all other aspects of the Contract that support these services. Each row of the table is detailed below:

- **MIA Network Management Fee**: This field must contain the PROPOSER’ cost for labor and overhead to install and manage all aspects of a single MIA client.
- **MW Network Management Fee**: This field must contain the PROPOSER’S cost for labor and overhead to install and manage all aspects of a single MW site.
- **Failover/Shared/Disaster Recovery Management Fee**: This field must contain the PROPOSER’S cost for labor and overhead to install and manage Failover, Shared, and Disaster Recovery Internet services.
- **Basic Firewall Management Fee**: This field must contain the PROPOSER’S cost for labor and overhead to install and manage a single Basic Managed Firewall service.
• **Next-Generation Firewall Management Fee**: This field must contain the PROPOSER’S cost for labor and overhead to install and manage a single Next-Generation Managed Firewall service.

• **Content Filter Management Fee**: This field must contain the PROPOSER’S cost for labor and overhead to install and manage content filtering service for a single MIA client.

• **Wifi Management Fee (1 to 4 APs)**: This field must contain the PROPOSER’S cost for labor and overhead to install and manage Managed Wifi service for a single client that requires from 1 to 4 APs spread across one or multiple sites.

• **Wifi Management Fee (5 to 20 APs)**: This field must contain the PROPOSER’S cost for labor and overhead to install and manage Managed Wifi service to a single client that requires from 5 to 20 APs spread across one or multiple sites.

• **Wifi External AP Fee**: This field must contain the PROPOSER’S cost for one single External Wifi AP broken down into a monthly fee.

• **Wifi Internal AP Fee**: This field must contain the PROPOSER’S cost for one single Internal Wifi AP broken down into a monthly fee.

• **Coastal Community College Complexity Fee**: This field must contain the PROPOSER”s cost for labor and overhead required above the standard MIA and MW Management fee for Coastal Community College due to the additional complexity of the requirements.

• **Shelton State Community College Complexity Fee**: This field must contain the PROPOSER’S cost for labor and overhead required above the standard MIA and MW Management fee for Shelton State Community College due to the additional complexity of the requirements.

• **Remote VPN Management Fee**: This field must contain the PROPOSER’S cost for labor and overhead to manage ten Remote Access VPN service users for a single Managed Firewall service.

Table 5.1b AREN Bandwidth Dependent Fees

The goal of this table is to identify a schedule of fees that account for infrastructure costs that vary based on the amount of bandwidth they support.

The PROPOSER must commit to using these fees for services that are part of its proposal.

The table lists bandwidth increments up to 10Gbps. The PROPOSER must include its proposed fee per bandwidth increment for each service fee.

The PROPOSER must use these fees when called for in Tables 5.1c-d. For reference, when ‘infrastructure’ is mentioned in the list below, that refers to all related infrastructure to provide and manage the Helpdesk, NOC, AREN Service Platform, Business Operations, Operations Security, and all other aspects of the Contract that support these services. Each column of the table is detailed below:
• **MIA Infrastructure Fee (MRC)** – The fields in this column must contain the **PROPOSER’S** fee for all proposed infrastructure for MIA Service, broken down into a monthly fee, per client, per bandwidth. This should **NOT** include any telecom transport service directly serving the client; this is covered in another table.

• **MW WAN-site Infrastructure Fee (MRC)** – The fields in this column must contain the **PROPOSER’S** fee for all proposed infrastructure for MW Service at a WAN endpoint site, broken down into a monthly fee, per site, per bandwidth. This should **NOT** include any telecom transport service directly serving the WAN endpoint site; this is covered in another table.

• **MW Core-site Infrastructure Fee (MRC)** – The fields in this column must contain the **PROPOSER’S** fee for all proposed infrastructure for MW service at the WAN Core site (“hub” location where multiple WAN circuits aggregate), broken down into a monthly fee, per site, per bandwidth. This should **NOT** include any telecom transport service directly serving the WAN endpoint site or Core site; this is covered in another table.

• **Managed Basic Firewall Infrastructure Fee (MRC)** – The fields in this column must contain the **PROPOSER’S** fee for Managed Basic Firewall services, broken down into a monthly fee, per client, per bandwidth.

• **Managed Next-Generation Firewall Infrastructure Fee (MRC)** – The fields in this column must contain the **PROPOSER’S** fee for Managed Next-Generation Firewall services, broken down into a monthly fee, per client, per bandwidth.

• **Content Filter Infrastructure Fee (MRC)** – The fields in this column must contain the **PROPOSER’S** fee for Content Filtering services, broken down into a monthly fee, per client, per bandwidth.

**Table 5.1c AREN Internet & WAN Costs**

The goal of this table is to identify Internet and WAN costs for each site, with a subtotal for each Contract year calculated to pass on to the Sub-Section Cost Table.

The **PROPOSER** must list all Transport Subcontractors used for Internet & WAN solutions in the “Transport Subcontractor(s)” column, and then use the “Describe Solution” column to briefly describe the solution design for each site.

The **PROPOSER** must also identify the Primary and Other AREN Service Platform Nodes that each Client Location with Service Type ‘Internet Access’ connects to. The Primary node should be the node that is responsible for the bandwidth when the network is functioning as designed. The names provided for these nodes must match and be easily referenced to the list provided in response to Section 5.1.2.8 of the RFP where the AREN Service Platform is described.

For evaluation purposes, the **AUTHORITY** has presented bandwidth level projections for each year of the contract, labeled Year 1 through 5 Bandwidth Cost Schedule in the table headers. The **PROPOSER** must provide the costs for each year as if each transport circuit is in place for the entire year.
During the Contract the **AUTHORITY** will only order changes to bandwidth as demand requires. For this reason, the **PROPOSER** must commit that the costs provided here will be valid regardless of when each bandwidth level is ordered during the Contract.

The following describes the columns requested for each Contract year and provides direction for completing the table:

- **Bandwidth**: Shows the **AUTHORITY**-projected bandwidth for each Client Location in Mbps.
- **Transport Subcontractor NRC**: This field must contain the Non-Recurring Cost quoted by the Telecom **PROPOSER** to provide the requested service.
- **Transport Subcontractor MRC**: This field must contain the Monthly Recurring Cost quoted by the Telecom **PROPOSER** to provide the requested service.
- **PROPOSER NRC**: This field must contain any Non-Recurring Cost that the **PROPOSER** requires to install, configure, or perform any other work required to provision the requested service. This field cannot include any hardware costs; this is covered in another column.
- **MIA Infrastructure Fee**: Only applicable for Client Locations with Service Type “Internet Access”. This field must be copied from Table 5.1b. Reference the fee name and fee amount that corresponds to the Level5 Bandwidth; the **AUTHORITY** requires MIA infrastructure to support Level5 bandwidth at the beginning of the contract.
- **MIA Network Management Fee + Complexity Fee**: Only applicable for Client Locations with Service Type “Internet Access”. This field must be copied from Table 5.1a using the fee shown there by the same name. The corresponding Complexity Fee must be added to the AREN MIA Network Management Fee for Coastal Alabama Community College and Shelton State Community College.
- **MW WAN-site Infrastructure Fee**: Only applicable for Client Locations with Service Type “WAN Connectivity”. This field must be copied from Table 5.1b. Reference the fee name and fee amount that corresponds to the Level5 Bandwidth; the **AUTHORITY** requires MW infrastructure to support Level5 bandwidth at the beginning of the contract.
- **MW Core-Site Infrastructure Fee**: Only applicable for Client Locations with Service Type “Internet Access”, where there are “WAN Connectivity” locations that connect to it. This field must be copied from Table 5.1b. Reference the fee name and fee amount that corresponds to the Level5 Bandwidth; the **AUTHORITY** requires MW infrastructure to support Level5 bandwidth at the beginning of the contract.
- **MW Network Management Fee**: Only applicable for Client Locations with Service Type “WAN Connectivity”. This field must be copied from Table 5.1a using the fee shown there by the same name.
- **Failover/Shared/Disaster Recovery Management Fee**: Only applicable for Client Locations with Service Type “Failover Internet Access”, “Shared Internet Access”, or
“Disaster Recovery Internet Access”. This field must be copied from Table 5.1a using the fee shown there by the same name.

- **Failover/Shared/Disaster Recovery Internet Access Infrastructure Fee**: Only applicable for Client Locations with Service Type “Failover Internet Access”, “Shared Internet Access”, or “Disaster Recovery Internet Access”. This field must be copied from Table 5.1b. Reference the fee name and fee amount that corresponds to the Level5 Bandwidth; the AUTHORITY requires this infrastructure to support Level5 bandwidth at the beginning of the contract.

- **Annualized MIA/MW Total for E-rate Eligible Clients**: Only applicable for Clients in the K12 and LIB categories. This field must be calculated by multiplying each of the MRC listed above by twelve (12) and then adding the NRC(s) to get an annualized value.

- **Annualized MIA/MW Total for E-rate Ineligible Clients**: Only applicable to Clients NOT in the K12 and LIB categories. This field must be calculated by multiplying each of the MRC listed above by twelve (12) and then adding the NRC(s) to get an annualized value.

Table 5.1c Transport Subcontractor Requirements

Transport Subcontractor costs must have a single MRC per bandwidth level, per client. Each bandwidth level may have one NRC cost. NRC costs are assumed to be cumulative (e.g., upgrading from Level1 bandwidth to Level3 bandwidth would incur both the Level2 NRC and the Level3 NRC). Transport Subcontractors can expect a 3-year term per circuit.

The AUTHORITY’s clients must be allowed to move between bandwidth levels at any time during the Contract. Transport Subcontractor circuits must be allowed to disconnect without penalty given 30-day notice from the AUTHORITY if the associated location closes or is no longer serviced by the AUTHORITY.

Table 5.1c Aggregation Circuit Requirements

Aggregation circuits may be needed in some client WAN configurations. Multiple aggregation circuits may be needed if the WAN design requires more than one Transport Subcontractor to reach all the WAN sites.

The PROPOSER must add and complete aggregation circuit rows to Table 5.1c AREN Internet & WAN Costs as needed to cover all aggregation circuit costs. These rows should duplicate the information of the corresponding client’s Category, E-rate Eligible, Client, Client Location, Street Address, City, and Zip fields. The “Connects To” column should state "WAN-<PROPOSER>", where <PROPOSER> is the name of the telecom PROPOSER providing the aggregation circuit. The “Service Type” column should state “WAN Aggregation”. These rows must not require any fees, but must specify the bandwidth, Transport Subcontractor NRC, Transport Subcontractor MRC, and any PROPOSER NRC that is needed for all bandwidth levels.

The aggregation circuit bandwidth for each level will be calculated as the sum of the same level bandwidth for each ‘Client Location’ that it supports. A row for each client Transport
Subcontractor aggregation circuit must be inserted just above the first WAN location for that same client.

Similar to all other Transport Subcontractor circuits, Aggregation circuits must be allowed to move between bandwidth levels at any time during the Contract. Aggregation circuits must be allowed to disconnect without penalty given 30-day notice from the AUTHORITY if the associated location closes or is no longer serviced by the AUTHORITY.

Table 5.1d AREN Other Services Costs

The goal of this table is to identify costs for six AREN services: Managed Firewall, Content Filter, Managed Wifi, DNS, Layer2 Transport, and Managed LAN. The cost for these services should remain constant for each year of the contract, and therefore only one annualized sub-total will be calculated for these services. This sub-total will be passed on the Sub-Section Cost Table for each Contract year.

The following describes the columns requested for each Contract year and provides direction for completing the table:

- **Level5 Bandwidth**: Shows the AUTHORITY-projected Level5 bandwidth for each client.
- **Basic or Next Generation Firewall Management Fee**: Only applicable for clients who require Managed Firewall Service. This field must be copied from Table 5.1a using the fee shown there for either Basic Firewall or Next-Generation Firewall, depending on which service the client requires.
- **Level5 Managed Basic or Next-Generation Firewall Infrastructure Fee**: Only applicable for clients who require Managed Firewall Service. This field must be copied from Table 5.1b. Reference the fee name and fee amount that corresponds to the type of firewall service the client requires and the Level5 Bandwidth; the AUTHORITY requires Managed Firewall infrastructure to support Level5 bandwidth at the beginning of the contract.
- **Remote VPN Management Fee**: Only applicable for clients who require Remote VPN service. This field must be copied from Table 5.1a using the fee shown there by the same name.
- **Annualized Managed Firewall SubTotal**: This field must be calculated as the sum of the previous three columns, multiplied by twelve (12) to convert from a monthly cost to an annual cost.
- **Content Filter Management Fee**: Only applicable for clients who require Content Filter Service. This field should be copied from Table 5.1a using the fee shown there by the same name.
- **Level5 Content Filter Infrastructure Fee**: Only applicable for clients who require Content Filter Service. This field must be copied from Table 5.1b. Reference the fee name and fee amount that corresponds to the Level5 Bandwidth; the AUTHORITY requires Content Filter infrastructure to support Level5 bandwidth at the beginning of the contract.
• **Annualized Content Filter SubTotal:** This field must be calculated as the sum of the previous two columns, multiplied by twelve (12) to convert from a monthly cost to an annual cost.

• **Wifi Management Fee:** Only applicable for clients who require Managed Wifi Service. This field must be copied from Table 5.1a using the fee shown there by the same name; use the value that corresponds to the number of APs the client requires.

• **Wifi Internal APs Fee:** Only applicable for clients who require Managed Wifi Service with Internal APs. The value in this field must be calculated by multiplying the Wifi Internal AP Fee from Table 5.1a by the number of Internal APs required.

• **Wifi External APs Fee:** Only applicable for clients who require Managed Wifi Service with External APs. The value in this field must be calculated by multiplying the Wifi Internal AP Fee from Table 5.1a by the number of External APs required.

• **Annualized Managed Wifi Subtotal:** This field must be calculated as the sum of the previous three columns, multiplied by twelve (12) to convert from a monthly cost to an annual cost.

• **DNS Management Fee:** This field must be copied from Table 5.1a using the fee shown there by the same name.

• **Annualized DNS Management Subtotal:** This field should be calculated as the previous column multiplied by twelve (12) to convert from a monthly cost to an annual cost.

• **L2 Transport MRC:** Only applicable for clients who require L2 Transport Services. The **PROPOSER** must enter their proposed cost for each client’s L2 Transport Services in this column, broken down as a monthly recurring cost.

• **Annualized L2 Transport Subtotal:** This field should be calculated as the previous column multiplied by twelve (12) to convert from a monthly cost to an annual cost.

• **Managed LAN MRC:** Only applicable for clients who require Managed LAN Services. The **PROPOSER** must enter their proposed cost for each client’s Managed LAN Services in this column, broken down as a monthly recurring cost.

• **Annualized Managed LAN Subtotal:** This field should be calculated as the previous column multiplied by twelve (12) to convert from a monthly cost to an annual cost.

**Table 5.1e Administrative Overhead Percentage**

It is the intent of the AUTHORITY for the pricing from the Cost Proposal tables to cover additional services added during the term of the 5-year contract. If additional services are required by the AUTHORITY or AUTHORITY clients for services or service levels not covered in any of the tables, the AUTHORITY will ask for the service to be quoted and an Administrative Overhead Percentage may be applied to the Contractor’s cost for such services.

**Table 5.2: Datacenter Services**
The **PROPOSER** must input cost data for Section 5.2 Datacenter Services into this table. There is a single row for any costs related to maintaining SOC 2 Type 2 certification, and then there is a row per client following that where the **PROPOSER** must provide the total cost per year to provide the required services for each client.

Costs listed in this table should include labor and overhead required to provide these services.
# 7 EVALUATION PROCEDURES

## 7.1 Proposer Evaluation Process

The Evaluation process is designed to identify the **PROPOSER** that best meets the needs of the **AUTHORITY** as expressed in this RFP. Overall **PROPOSER** qualifications and price shall be taken into consideration with E-Rate eligible cost as the primary factor in the evaluation to comply with Universal Service Administrative Company (USAC) rules and regulations. The overall evaluation criteria are defined in this Section.

### 7.1.1 Proposal Evaluation Participants

#### 7.1.1.1 The RFP Coordinator will coordinate the overall Proposal evaluation process and maintain Proposal evaluation records. The RFP Coordinator will develop the scoring instruments, train the Evaluation Committee, score the Cost Proposal, and tabulate the final **PROPOSER** scores. All Proposals will be reviewed by the RFP Coordinator to determine compliance with the Proposal Compliance Checklist. Only those Proposals meeting the pre-established acceptance criteria will be evaluated. Proposals determined to be unacceptable will not be evaluated. The RFP Coordinator is not a member of the Evaluation Committee.

#### 7.1.1.2 An Evaluation Committee consisting of **AUTHORITY** stakeholders from the information technology community will evaluate Proposals. The Evaluation Committee will evaluate and score each Proposal, participate in oral presentations, and develop recommendations to the **AUTHORITY** for award.

#### 7.1.1.3 The Financial Stability evaluation will be performed by a third-party financial CPA firm or consultant independent of the Evaluation Committee.
7.2 Evaluation Criteria and Weights

The Evaluation Committee determined the specific weighted score for each section of the Proposal as follows:

<table>
<thead>
<tr>
<th>Weighted Score</th>
<th>Section</th>
<th>Section Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>08</td>
<td>Qualifications and Experience</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>Financial Stability</td>
<td>4.6</td>
</tr>
<tr>
<td>02</td>
<td>References</td>
<td>4.7</td>
</tr>
<tr>
<td>10</td>
<td>Staffing</td>
<td>4.8</td>
</tr>
<tr>
<td>13</td>
<td>Technical Requirements</td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>Alabama Research and Education Network</td>
<td>5.1</td>
</tr>
<tr>
<td>07</td>
<td>Data Center Services</td>
<td>5.2</td>
</tr>
<tr>
<td>07</td>
<td>High Performance Computing Services</td>
<td>5.3</td>
</tr>
<tr>
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<tr>
<td>07</td>
<td>Applications Development Services</td>
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</tr>
<tr>
<td>02</td>
<td>Operational Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional Services</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>ASA Business Operations</td>
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<tr>
<td></td>
<td>Operations Security and Business Continuity</td>
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<td>Cost</td>
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<tr>
<td>10</td>
<td>E-Rate Eligible Items</td>
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<tr>
<td>02</td>
<td>Non E-Rate Eligible Items</td>
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</tr>
<tr>
<td>100</td>
<td>Total Composite Score (100% Maximum)</td>
<td></td>
</tr>
</tbody>
</table>

7.3 Oral Presentations

The Evaluation Committee may request oral presentations be provided by a PROPOSER as part of the evaluation process. Committee members and AUTHORITY will be able to ask questions regarding the Proposal as part of their scoring process.

7.4 Contract Award Process

7.4.1 Following the completed Evaluation Process and a recommendation of award by the evaluation committee, the AUTHORITY CEO will present this recommendation to the AUTHORITY Board of
Directors. Upon Board approval, the AUTHORITY CEO will begin Contract negotiations with the selected PROPOSER. The AUTHORITY reserves the right, at its sole discretion, to negotiate with the selected PROPOSER subsequent to the Evaluation Notice. Should the parties be unable to reach an agreement on the terms and conditions of a Professional Services Agreement that is satisfactory to the AUTHORITY within a reasonable time, the AUTHORITY shall, at its sole discretion, select another PROPOSER whose Proposal meets the needs of the AUTHORITY and begin Contract negotiations with that PROPOSER. The AUTHORITY shall continue this process until a satisfactory Professional Services Agreement is executed with a PROPOSER.

7.4.2 Contract award shall be subject to the approval of all appropriate AUTHORITY and State government officials and in accordance with applicable state laws and regulations. The AUTHORITY reserves the right to cancel this RFP process at any time prior to the execution of a Professional Services Agreement and initiate another selection process or enter into Contract negotiations with any PROPOSER subject to compliance with any State laws or regulations governing this transaction.
8 TRANSITION MANAGEMENT

8.1 General Overview

One of the most critical responsibilities for the successful CONTRACTOR will be assisting the AUTHORITY with a smooth transition of services at both the beginning and end of the Contract. A poorly managed transition, on either end, will greatly overshadow any level of excellence provided during the Contract. This section will detail requirements the AUTHORITY places on the CONTRACTOR to help ensure the transition process is successful.

The PROPOSER must respond to all subsections of Section 8 with separate “acknowledge and will comply” statements.

The PROPOSER must respond to any subsections entitled “Understanding and Approach” with a detailed description of the service they will provide as requested by that subsection.

8.2 Incoming Transition

The following requirements and information apply to the CONTRACTOR at the beginning of the Contract when services are transitioned from the INCUMBENT CONTRACTOR to the successful CONTRACTOR (Transition Project).

8.2.1 Project Management

The PROPOSER must provide and implement a Project Plan to effectively plan, control, and transition all services listed in Section 5, focused on minimizing any service interruptions. The successful CONTRACTOR must work with the AUTHORITY CEO and the AUTHORITY CEO’s designated representatives to finalize this plan before implementation.

The PROPOSER’S Project Plan must include the following information:

- Plan Summary
- Project Schedule and Dependencies
  - Gantt Style Chart is Preferred
  - Include Preliminary Project Timelines and Milestones
- Change Procedure
  - To manage issues that come up during implementation
- Communication Plan
  - Communication with the AUTHORITY
  - Communication with the AUTHORITY’S Clients
  - Communication with Other Involved Third Parties
- **Subcontractor Management Plan**
  - Describe relationships between the **PROPOSER** and any subcontractors that will be necessary to complete the Transition Project.
  - Detail how the **PROPOSER** will delegate responsibility for managing each subcontractor.

- **AUTHORITY Responsibilities**
  - List any responsibilities that the **AUTHORITY** will have in the **PROPOSER’S** plan.
  - Estimate time requirements for all **AUTHORITY** staff.

- **Quality Assurance Plan**
- **Risk Management Plan**

The **CONTRACTOR** must provide a monthly Transition Project Status Reports and review each report with the **AUTHORITY**. These reports must include, at a minimum:
- Updated List of Issues and Risk Assessment
- Updated Risk Mitigation recommendations
- Summary of work completed the previous month
- Analysis of progress
- Summary of work scheduled for the following month
- Analysis of critical issues, including any schedule variance/slippage

The **CONTRACTOR** must coordinate with the **AUTHORITY** to ensure resolution of any identified issues during the transition.

The **PROPOSER** must provide a detailed description of the **PROPOSER’S** mechanism to track and report the progress of the Transition Project to the **AUTHORITY**.

### 8.2.2 Integration with OneASA

The **PROPOSER** must review Section 5.7 Business Operations of the RFP to determine all data that must be delivered to the OneASA Business Operations application.

The **PROPOSER** must create a plan to deliver the required data to OneASA, automating as much as is possible and reasonable. This plan should be shared in response to the Understanding and Approach section below.

### 8.2.3 Understanding and Approach

The **PROPOSER** must describe its approach to conducting the Transition Project with minimal impact to the **AUTHORITY** and its clients. The **PROPOSER** must also provide its preliminary Project Plan for the Transition Project. The **PROPOSER’S** goal in this section should be to show that it understands and is prepared for the challenge presented by the Incoming Transition.
8.3 Outgoing Transition

Upon termination of the Contract and in the event that a different contractor is awarded the subsequent Contract, the CONTRACTOR agrees to provide continuing services as the AUTHORITY transitions itself to receive such services from a new PROPOSER. The services required are those as defined under the Contract (including any amendments and Contract Work Orders) and will be provided on a month-to-month basis. Charges for these services will be based on the payment schedule and Contract Work Orders then current at the time of Contract termination.

If the extension of the Contract necessitates additional funding beyond that which was included in the original Contract, the increase in the AUTHORITY’S maximum liability will be affected through an amendment to the Contract.

The following requirements and information apply to the CONTRACTOR towards the end of the Contract, and in the final six (6) months of the contract (Exit Transition Period), when services are potentially transitioned from the CONTRACTOR to another PROPOSER who will assume responsibility for services once the Contract expires.

8.3.1 Transition Preparation

At the beginning of year four (4) of the Contract (July 1, 2026), the CONTRACTOR must work with the AUTHORITY to establish a Transition Plan to include, but not limited to:

- Project Implementation Logistics
- Staffing during the Transition
- Knowledge Transfer
- AUTHORITY Involvement
- Risk Assessment
- Schedule/Milestones

8.3.2 Intellectual Property

The CONTRACTOR must acknowledge that the configuration of and data contained in any infrastructure required to provide services described in this RFP, or any additional services agreed upon and added to the Contract with the AUTHORITY will be the property of the AUTHORITY and/or its clients.

The CONTRACTOR agrees to provide configuration details and data to the AUTHORITY at any time, if requested by the AUTHORITY. This information should be provided in a standard format that can be easily and efficiently understood and translated for use in continuing services beyond the term of the AUTHORITY’s contract with the CONTRACTOR.
8.3.3 Exit Transition Period

The CONTRACTOR’S staff must willingly cooperate with the AUTHORITY and its selected PROPOSER during the Exit Transition Period for the purposes of knowledge transfer and smooth transition of services to the new PROPOSER. This cooperation may require re-tasking CONTRACTOR personnel to support the Exit Transition instead of their normal duties.

The CONTRACTOR must notify the AUTHORITY with a detailed explanation if any Exit Transition activity will impact service levels. However, the AUTHORITY reserves the final decision-making AUTHORITY to analyze risk and prioritize tasks during this period.

8.3.4 Understanding and Approach

The CONTRACTOR must describe its approach to conducting a smooth and successful Exit Transition with minimal impact to the AUTHORITY and its clients. The CONTRACTOR’S goal in this section should be to show that it understands the environment that exists during the Exit Transition and is able to assure the AUTHORITY that it will remain committed to excellent service through the end of the Contract.
9 GENERAL TERMS AND CONDITIONS

9.1 Scope of Services

The CONTRACTOR shall provide the services to the AUTHORITY in accordance with the requirements as stated and outlined in Section 5 and the corresponding Section 10, ATTACHMENTS.

Section 5.1 Alabama Research and Education Network (AREN)
Section 5.2 Datacenter Services
Section 5.3 High Performance Computing Services
Section 5.4 Security Operations Center (SOC)
Section 5.5 Application Development Services
Section 5.6 Additional Services
Section 5.7 ASA Business Operations
Section 5.8 Operations Security and Business Continuity

The CONTRACTOR agrees to require CONTRACTOR personnel to make a good faith effort to convey knowledge and provide on-the-job training, in the services provided by the CONTRACTOR under the Contract, to appropriate AUTHORITY employees or succeeding contractor prior to the termination of the Contract resulting from this RFP. CONTRACTOR agrees to require CONTRACTOR personnel to make a good faith effort to train appropriate AUTHORITY employees or succeeding contractor in the use and maintenance of any software developed during the course of the Contract.

The AUTHORITY agrees to make a good faith effort to identify the appropriate AUTHORITY employees or succeeding contractor and to provide such employees in a timely manner with the necessary perquisite training with adequate on-the-job training time.

9.2 Contract Term

9.2.1 Contract Term

The Contract will be effective for the period commencing on July 1, 2023 and ending on June 30, 2028. The AUTHORITY will have no obligation for services rendered by the CONTRACTOR that are not performed within this specified period. The transition of service to the Contract resulting from this RFP will be completed effective 12:01 a.m. July 1, 2023.

9.2.2 Contract Extension

The AUTHORITY may extend the Contract at the end of its original Contract term pursuant to the provisions agreed to in the Contract. The AUTHORITY reserves the right to extend the Contract for an
additional period or periods of time representing a minimum of one (1) year and no more than two (2) years, provided that the AUTHORITY notifies the CONTRACTOR in writing of its intention to do so at least ninety (90) days prior to the Contract expiration date. An extension of the term of the Contract will be affected through an amendment to the Contract. If the extension of the Contract necessitates additional funding beyond that which was included in the original Contract, the increase in the State’s maximum liability will also be affected through an amendment to the Contract and shall be based upon rates provided for in the original Contract.

9.3 Payment Terms and Conditions

9.3.1 Maximum Financial Liability

The Contract will contain a “not to exceed” amount. The payment amount will constitute the entire compensation due the CONTRACTOR for the service and all of the CONTRACTOR’S obligations hereunder regardless of the difficulty, materials or hardware/software required, or the E-rate discounts due to the CONTRACTOR on behalf of the AUTHORITY.

The CONTRACTOR is not entitled to be paid any amount for any period under the Contract or any extensions of the Contract for work not requested by the AUTHORITY. The maximum liability represents available funds for payment to the CONTRACTOR and does not guarantee payment of any such funds to the CONTRACTOR under the Contract unless the AUTHORITY requests work and the CONTRACTOR performs said work. The AUTHORITY is under no obligation to request work from the CONTRACTOR in any specific dollar amounts or to request any work at all from the CONTRACTOR during any period of the Contract. This amount will not include E-Rate funds paid directly to the CONTRACTOR by USAC for E-Rate eligible services that the CONTRACTOR has provided.

9.3.2 Payment Procedure

Effective July 1, 2023, the CONTRACTOR will be compensated based on the Contract, Cost Proposal and Contract Work Orders authorized by the AUTHORITY. The CONTRACTOR’S compensation will be contingent upon the satisfactory completion of services defined in Section 9.1 - Scope of Services and subsequent Work Orders and Projects.

The AUTHORITY will not prepay for services, all invoices must be submitted in arrears.

The CONTRACTOR must submit monthly invoices, in form and substance approved by the AUTHORITY with all of the necessary supporting documentation as required by the AUTHORITY, prior to any payment. Such monthly invoices shall be submitted for completed services and projects based on the Cost Proposal and Contract Work Orders.
**CONTRACTOR** must separate E-rate eligible services costs from ineligible services costs and provide support for the allocation of E-rate eligible amounts where costs are included as part of a larger services billing. **CONTRACTOR** must provide to the **AUTHORITY** an annual reconciliation of E-rate eligible and ineligible services costs and associated E-rate discounts for each funding year.

The **CONTRACTOR** must also submit invoices, in form and substance acceptable to the Federal Communications Commission (FCC) / Universal Service Administrative Company (USAC) E-rate Program and with all of the necessary supporting documentation and receive payment according to FCC E-rate program rules and regulations. The **CONTRACTOR** must send the **AUTHORITY** a copy of its completed Service Provider Invoice Form, FCC Form 474, or USAC approved electronic filing transmittal backup, simultaneously for review to ensure proper billing to USAC. The **AUTHORITY** will in no way be responsible for the discounted portion that the FCC / USAC E-rate Program Fund Administrator has agreed to pay to the **CONTRACTOR** other than the **AUTHORITY**'s obligations to submit various filings in compliance with the FCC E-rate Program. The **AUTHORITY** requires a discounted invoice from the **CONTRACTOR**.

Under no circumstances will the **AUTHORITY** be liable to the **CONTRACTOR** for payments that USAC has refused to make due to a late filed FCC Form 474, errors on a filed FCC Form 474 or any other form-related matter over which the **AUTHORITY** had no control. In no case where USAC has refused to pay all or part of a filed FCC Form 474 will the **AUTHORITY** be liable to the **CONTRACTOR** for the unpaid amount, unless (1) USAC'S refusal to pay resulted directly from the negligence of the **AUTHORITY** or (2) the unpaid amount was for ineligible services. If the unpaid amount was for ineligible services, the **AUTHORITY** will have the option to file an administrative appeal. If the **AUTHORITY** appeals, the **AUTHORITY** will not be liable to the **CONTRACTOR** for the unpaid amount until it receives a final decision from the FCC concluding that the unpaid amount was for ineligible services and that USAC correctly refused to pay under the circumstances.

The **CONTRACTOR** must be in compliance with the E-rate Program rules at all times. In the event that the Schools and Libraries Division (SLD) determines that the **CONTRACTOR** has not acted in compliance with the Program rules, it can result in denial of funding, reduction in funding, cancellation of funding (a commitment adjustment), audit or other investigation, for which the **CONTRACTOR** shall take full responsibility. The **CONTRACTOR** agrees to indemnify the **AUTHORITY** for any loss of service including but not limited to fines, costs and any other fees for its failure to adhere to any E-rate program rules.

### 9.3.3 Payment of Invoice

The payment of the invoice by the **AUTHORITY** will not prejudice the **AUTHORITY**'s right to object to or to question any invoice or matter in relation thereto. Such payments by the **AUTHORITY** will neither be construed as acceptance of any part of the work or service provided nor as an approval of the amounts invoiced therein.
Due to the large pre-discount amounts being applied for on behalf of the Alabama Research and Education Network (AREN) consortium, the **AUTHORITY** will only pay a discounted invoice each month to the **CONTRACTOR** for the submitted AREN consortium application discount even though the SLD has not approved the E-rate discount. Once the SLD commits to the funding or discount, the **CONTRACTOR** invoice must be adjusted over the remaining months to accommodate any funding shortage or overage. In the event that the **AUTHORITY** is awarded less than 100% of its requested E-rate funding then the **AUTHORITY** may purchase appropriate combinations of services. If services have begun before E-rate approval have been reduced or denied, the **AUTHORITY** will provide incremental payment for lost services as agreed upon by the **AUTHORITY** within the **AUTHORITY**'s ability to pay.

### 9.3.4 Invoice Reductions

The **CONTRACTOR**'s invoice shall be subject to a reduction for E-rate discounts. The **CONTRACTOR**'s invoice shall be subject to reduction for amounts included in any invoice or payment made which are determined by the Contract, to be in excess of compensable services.

### 9.3.5 Deductions

The **AUTHORITY** reserves the right to deduct from amounts due and payable to the **CONTRACTOR** any amounts due and payable to the **AUTHORITY** by the **CONTRACTOR**.

**9.3.5.1** **CONTRACTOR**'s priority in filling vacated Key Positions should be to recruit top talent. When the time required to fill a Key Position exceeds 60 days, a work order credit shall be provided for the time beyond 60 days for the vacancy based on the salary of the vacated Key Position. Documentation of the salary of this key position must be included with the credit. An exception may be approved by the **AUTHORITY** if **CONTRACTOR** provides interim support, with similar qualifications, for the vacant position with **CONTRACTOR** staff that is not intended to be permanently assigned to the program or if significant overtime of existing staff is required to fill the duties of the vacated position.

### 9.3.6 Mid-Contract Refresh

Given the long term of the Contract, the **AUTHORITY** may validate that the Contract pricing is still competitive through a price re-determination process at the three-year anniversary (June 30, 2026) to be effective July 1, 2026 of the Contract. The **AUTHORITY** will compare then current Contract rates to the then current industry market and give the **CONTRACTOR** an opportunity to modify their rates to lower cost or take advantage of improved technology to come in line with industry pricing.

### 9.3.7 Required Approvals

In accordance with applicable Alabama State laws and regulations, the **AUTHORITY** is not bound by the Contract until the officials of the State of Alabama approve it.
9.3.8 Contract Amendments

The Contract may be modified as needed through amendments executed by all parties hereto and approved by the appropriate AUTHORITY officials in accordance with applicable Alabama State laws and regulations.

9.3.9 Contract Work Orders

During the course of the Contract, the AUTHORITY may request the CONTRACTOR to perform additional work or to terminate service for which the CONTRACTOR’S compensation would need to be increased or decreased. This request or work order will be within the general scope of services. In such instances, the AUTHORITY will provide the CONTRACTOR a description of work or service termination. The CONTRACTOR shall submit a time schedule for accomplishing the work or service termination and a price for the work or service termination consistent with the services values and costs included in the Contract or subsequent Contract Work Orders. The CONTRACTOR shall provide in support of the work order copies of CONTRACTOR quotes and detailed data on the development of the final fixed cost to include the Administrative Overhead percentage by the AUTHORITY. The work order must be authorized by the AUTHORITY. The work order will be considered completed once the service is installed or the service is terminated. Completed work orders will accumulate for a period of 30 days and will be compiled monthly by the CONTRACTOR into a Contract Work Order and submitted to the AUTHORITY for review. The Contract Work Order will be a mutually agreed upon price increase or decrease from the Contract baseline and will be executed by the CONTRACTOR and the AUTHORITY. A Contract Work Order must be completed for a 30-day reporting period (monthly) or an adjustment to the invoice may be assessed by the AUTHORITY for failure to report as required in this Section.

The CONTRACTOR’S response to the services, as detailed and outlined in the AUTHORITY’S RFP, establishes a base level of services and associated value of said services. Upon any change to the established base level of services and associated value of said services, including but not limited to upgrades and disconnects, the CONTRACTOR shall credit the base value of any affected base services to the AUTHORITY through the Contract Work Order process. Such credit will be performed at the approval of and satisfaction to the AUTHORITY.

The Administrative Overhead Percentage may be addressed on an annual basis. The CONTRACTOR shall not apply the Administrative Overhead Percentage for non-recurring charges that are determined by the AUTHORITY as outside normal non-recurring charges without written permission by the AUTHORITY. This includes but is not limited to “Special Construction” charges for build-out of network services provided by CONTRACTOR.

The CONTRACTOR must provide an Administrative Overhead Percentage in the Cost Proposal Workbook 5.1e (AOP) attachment in this RFP of the Cost Proposal for any modification value.
9.3.10 Termination

9.3.10.1 Termination for Convenience. The AUTHORITY may terminate the Contract without cause for any reason prior to normal expiration. Termination will not be deemed a breach of Contract by the State or the AUTHORITY. The AUTHORITY will give the CONTRACTOR at least a 30-day notice before the termination date.

9.3.10.2 Property upon Termination. Upon termination of the Contract, the CONTRACTOR shall provide, within 30 days of termination, a complete inventory list of all CONTRACTOR hardware/software used in support of the professional services to the AUTHORITY.

9.3.10.3 Compensation upon Termination. The CONTRACTOR will be entitled to receive compensation for satisfactory, authorized service completed as of the termination date, but in no event will the AUTHORITY be liable to the CONTRACTOR for compensation for any service that has not been rendered.

9.3.10.4 Termination Damages. Upon such termination, the CONTRACTOR will have no right to any actual, general, special, incidental, consequential, or any other damages whatsoever of any description or amount.

9.3.10.5 Termination for Cause. If the CONTRACTOR fails to properly perform its obligations under the Contract in a timely or proper manner, or if the CONTRACTOR violates any terms of the Contract, the AUTHORITY will have the right to immediately terminate the Contract and withhold payments in excess of fair compensation for completed services. Notwithstanding the above, the CONTRACTOR shall not be relieved of liability to the AUTHORITY for damages sustained by virtue of any breach of the Contract by the CONTRACTOR.

It is agreed that the terms and conditions contained herein shall not be constituted as a debt of the State of Alabama in violation of Article 11, Section 213 of the Constitution of Alabama, 1901, as amended by Amendment Number 26. It is further agreed that if any provision of the Contract shall contravene any statute or Constitutional provision or amendment, either now in effect or which may, during the course of the Contract, be enacted, then that conflicting provision in the Contract shall be deemed null and void. The CONTRACTOR'S sole remedy for the settlement of any and all disputes arising under the terms of this agreement shall be limited to the filing of a claim with the Board of Adjustment for the State of Alabama.

In the event of the proration of the fund from which payment under the Contract is to be made, the Contract will be subject to termination or renegotiation at the sole discretion of the AUTHORITY.
9.3.11 Assignment and Subcontracting

The CONTRACTOR shall not assign the Contract or enter into a subcontract for any of the services performed under the Contract without obtaining the prior approval of the AUTHORITY. If the AUTHORITY approves such subcontracts, they shall contain, at a minimum, sections of the Contract pertaining to “Conflicts of Interest” and “Nondiscrimination” (Sections 9.3.12 and 9.3.13).

Notwithstanding any use of approved subcontractors, the CONTRACTOR shall be the Prime Contractor and shall be responsible for all work performed. The Prime Contractor must perform at a minimum 70% of the work for this contract.

9.3.12 Conflicts of Interest

The CONTRACTOR warrants that no part of the total Contract amount will be paid directly or indirectly to an employee or official of the AUTHORITY as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the CONTRACTOR in connection with any work contemplated or performed relative to the Contract. The CONTRACTOR shall not provide services as of July 01, 2023, as a primary or subcontractor, to any other entities within Alabama, if such services, as determined by the AUTHORITY, are within the scope of services provided by the AUTHORITY, without written permission by the AUTHORITY.

9.3.13 Nondiscrimination

The CONTRACTOR hereby agrees, warrants, and assures that no person will be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of the Contract as a result of this RFP or in the employment practices of the CONTRACTOR on the grounds of disability, age, race, color, religion, sex, national origin, or any other classification protected by Federal, Alabama State constitutional, or statutory law. The CONTRACTOR shall, upon request, show proof of such nondiscrimination policies and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.

9.3.14 Records

The CONTRACTOR must maintain documentation for all charges against the AUTHORITY under the Contract. The books, records, and documents of the CONTRACTOR, insofar as they relate to work performed or money received under the Contract, must be maintained for a period of ten (10) full years from the date of final payment or after the last day of service delivered for E-rate document retention requirements, and shall be subject to audit at any reasonable time and upon reasonable notice by the AUTHORITY, the State of Alabama Examiners of Public Accounts, the Universal Service Administrative Company (USAC), or their duly appointed representatives.
The CONTRACTOR shall provide an annual updated financial profile referenced in the 10.4.2 – Proposer Financial Resources Profile attachment, to the AUTHORITY annually within 120 days of end of CONTRACTOR’S fiscal year. The AUTHORITY, at its discretion, reserves the right to request an audited financial statement in accordance with generally accepted accounting principles.

9.3.15 Auditing

The CONTRACTOR shall, at the discretion of the AUTHORITY, be required to participate in a Contract audit by an independent entity selected by the AUTHORITY to include, but not limited to, both Financial and Security audits. The entity shall prepare an audit report of the existing Contract to include base Contract, amendments, Service Level Agreements (SLA), and Work Orders for the purpose of assuring compliance with contractual requirements. The CONTRACTOR shall be required to adhere to all audit timelines and respond to audit findings when determined.

The CONTRACTOR must immediately notify the AUTHORITY of any information regarding pending litigation, civil and/or criminal, in which CONTRACTOR and/or its subsidiaries, successors, Subcontractors or agents are named as parties.

9.3.16 Service Level Agreement (SLA)

The CONTRACTOR must acknowledge and comply that any failure to meet established SLAs may have a material adverse impact on AUTHORITY clients and may result in a service credit. The credit will be based on the value of any loss of service caused by failure to meet the defined SLA. The AUTHORITY’s required SLAs in ATTACHMENT 10.9 Service Level Agreements (SLAs) will be mutually agreed upon between the AUTHORITY and the CONTRACTOR based on services selected by the AUTHORITY.

The AUTHORITY and the CONTRACTOR shall mutually establish formal SLAs for all services provided under the Contract over the Contract period and shall become a part of the contract. SLAs are defined as statements in measurable terms of the “level of service” to be provided by the CONTRACTOR. SLAs may be reviewed and reestablished at any time depending on the services to be provided under the Contract.

9.3.17 Management Reporting

The CONTRACTOR shall submit management reports as identified throughout Section 5 of this RFP established by the AUTHORITY.

9.3.18 Independent Contractor

The parties, in the performance of the Contract resulting from this RFP, will not act as employees, partners, joint ventures, or associates of one another. It is expressly acknowledged the CONTRACTOR
shall at all times act as an independent contractor. Nothing in the Contract resulting from this RFP will be construed to create an employer/employee relationship or to allow either to exercise control or direction over the manner or method by which the other transacts its business affairs or provides its usual services. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purpose whatsoever.

The CONTRACTOR, being an independent CONTRACTOR and not an employee of the AUTHORITY, agrees to carry adequate general liability and other appropriate forms of insurance naming the AUTHORITY as an additional insured and to pay all applicable taxes incident to the Contract resulting from this RFP.

The CONTRACTOR or its employees or Subcontractor(s) are not to be considered merit system employees and are not entitled to benefits of the State Merit System.

9.3.19 Authority Liability

The AUTHORITY shall have no liability except as specifically provided in the Contract.

9.3.20 Force Majeure

The obligations of the parties to the Contract resulting from this RFP are subject to prevention by causes beyond the parties’ control that could not be avoided by the exercise of due care including, but not limited to, acts of God, riots, war, strikes, epidemics or any other similar cause.

9.3.21 State and Federal Compliance

The CONTRACTOR shall comply with all applicable State and Federal laws and regulations in the performance of the Contract.

9.3.22 Completeness

The Contract resulting from this RFP will be complete and contain the entire understanding between the parties relating to the subject matter contained herein, including all the terms and conditions of the parties’ agreement. The Contract resulting from this RFP supersedes any and all prior understandings, representations, negotiations, and agreements between the parties relating hereto, whether written or oral.
9.3.23 Severability

If any terms and conditions of the Contract resulting from this RFP are held to be invalid or unenforceable as a matter of law, the other terms and conditions hereof will not be affected thereby and shall remain in full force and effect.

9.3.24 Headings

Section headings of the Contract resulting from this RFP are for reference purposes only and will not be construed as part of the Contract resulting from this RFP.

9.3.25 Minority Participation

The CONTRACTOR shall maintain a policy of non-discrimination for all employees and applicants in every facet of the company’s operations. In compliance with federal and state laws, the CONTRACTOR shall hire, train, and promote all qualified employees without unlawful discrimination on the basis of race, color, sex, age, religious creed, marital status, citizenship, national origin, or disability. This policy also applies to disabled veterans.

9.3.26 Most-Favored-Nations

CONTRACTOR represents and warrants that it has not agreed to accept from any other payer a reimbursement rate that is less than what is offered by CONTRACTOR under the Contract resulting from this RFP. If CONTRACTOR offers a better reimbursement rate to any other Payer, the CONTRACTOR must provide prior written notice of such an offer to the AUTHORITY and give the AUTHORITY the option to accept the reduced reimbursement rate. Thereafter, at AUTHORITY’S option, AUTHORITY may accept the reduced reimbursement rate, or it may terminate the Contract immediately upon written notice to CONTRACTOR.

9.3.27 Staffing

Personnel supplied by the CONTRACTOR (including any subcontractor personnel) are not the AUTHORITY’S personnel or agents and the CONTRACTOR must assume full responsibility for their acts and compensation.

CONTRACTOR shall maintain, at a minimum, the Organizational Structure as required in the RFP and as submitted in CONTRACTOR’S Proposal. Any deviations from the base Organizational Structure shall require prior written permission from the AUTHORITY. CONTRACTOR must submit any organizational changes and updated staffing information to the AUTHORITY. The CONTRACTOR must provide an updated Organizational Chart that lists all CONTRACTOR personnel, by name and title, and provide
additional staff resumes for deviations, detailing individual’s experience and qualifications to support the requirement of the AUTHORITY program and the Contract. The AUTHORITY reserves the right to reject or request removal by CONTRACTOR of any such personnel.

All CONTRACTOR personnel shall be dedicated to providing the services as outlined in the Contract and associated RFP. Dedicated personnel shall not be available or reallocated to support other projects outside of the AUTHORITY without written permission by the AUTHORITY.

The CONTRACTOR is expected to size the staff to adequately support the requirements of the AUTHORITY’S program. The CONTRACTOR staff assigned to the AUTHORITY’S program must be exclusively dedicated to the AUTHORITY. Additions or deletions to the CONTRACTOR staff must be approved by the AUTHORITY prior to any changes. The AUTHORITY will not pay additional personnel salary expenses for work performed by support personnel already allocated to the program.

The CONTRACTOR must staff all designated Network Operations Center support personnel during the business day (Monday through Friday, 8 a.m. till 5 p.m.) The Alabama Supercomputer Center (ASC) operates 24x7x365. The CONTRACTOR shall provide after-hours on-site coverage and must provide management escalation procedures.

CONTRACTOR key personnel must be available to work on-site during the business day. (Monday through Friday, 8 a.m. till 5 p.m.)

9.4 Special Terms and Conditions

9.4.1 Non-Availability of Funds & Proration

Continuation of any professional services Contract between the AUTHORITY and a CONTRACTOR is contingent upon continued funding from State, Federal, Universal Service Fund, and AUTHORITY client sources for the purpose of this RFP and any resulting Contract. Non-availability of funds from such sources at any time shall cause any Contract to become void and unenforceable upon thirty-day notice to the CONTRACTOR by the AUTHORITY. The AUTHORITY will not incur liability beyond the payment of any accrued Contract charges. Any provision of a professional services Contract resulting from this RFP to the contrary notwithstanding, in the event of failure of the AUTHORITY to make payment hereunder at the time such payment is due, as a result of partial non-availability of funds, because of lack of sufficient revenues of the State to make such payment (proration of appropriated funds for the AUTHORITY having been declared by the Governor pursuant to Section 41-4-90 of the Code of Alabama 1975), the AUTHORITY will have the option, in addition to the other remedies of the Contract, of terminating or renegotiating the Contract at the sole discretion of the AUTHORITY.
9.4.2 Performance Bond

The CONTRACTOR shall be required to provide the AUTHORITY a performance bond, with terms and conditions satisfactory to the AUTHORITY, in the amount of twelve million dollars ($12,000,000). The amount of this performance bond may be reduced with the approval of the AUTHORITY over the term of the Contract.

Any failure on the part of the CONTRACTOR to deliver, install or perform under the terms of the Contract resulting from this RFP to include the base Contract, amendments, SLAs and Contract Work Orders to the satisfaction of the AUTHORITY, will be given a written description of failure and be allowed 30 days to correct failure to the satisfaction of the AUTHORITY. If after this 30 day notice the CONTRACTOR fails to deliver, install, or perform under the terms of the Contract resulting from this RFP to include the base Contract, amendments and Contract Work Orders to the satisfaction of the AUTHORITY, the AUTHORITY reserves the right to proceed against the performance bond and to cancel the Contract without any resulting liability, present and future, to the AUTHORITY. The AUTHORITY will hold this bond for the duration of the professional services Contract and any extensions.

9.4.3 Authorized Furnished Property

The CONTRACTOR shall be responsible for the correct use, maintenance, and protection of all articles of nonexpendable, tangible, personal property furnished by the AUTHORITY for the CONTRACTOR’S temporary use under the Contract. Upon termination of the Contract resulting from this RFP, all property furnished shall be returned to the AUTHORITY in good order and condition as when received, reasonable use and wear thereof accepted. Should the property be destroyed, lost, or stolen, the CONTRACTOR shall be responsible to the AUTHORITY for the residual value of the property at the time of loss.

9.4.4 Hold Harmless

The CONTRACTOR agrees to indemnify and hold harmless the AUTHORITY, its officers, agents, and employees from and against third party claims, liabilities, losses, and causes of action which may arise, accrue, or result to any person, firm, corporation, or other entity which may be injured or damaged as a result of acts, omissions, or negligence on the part of the CONTRACTOR, its employees, or any person acting for or on its or their behalf relating to the Contract. The CONTRACTOR further agrees it will be liable for the reasonable cost of attorneys for the AUTHORITY applicable to third party claims under the Contract resulting from this RFP.

Contingent upon the AUTHORITY providing written notice of such claims, the CONTRACTOR shall provide all assistance required by the AUTHORITY in the AUTHORITY’S defense of such third-party claims. The CONTRACTOR shall have full right and obligation to conduct the CONTRACTOR’S own defense thereof.
9.4.5 Office Space

9.4.5.1 The AUTHORITY will provide to the selected CONTRACTOR up to 14,000 square feet of computer grade and office space located at the Alabama Supercomputer Center, 686 Discovery Drive, Huntsville, AL, to occupy and operate the computer and network systems for the purpose of supporting the AUTHORITY effective July 1, 2023. The AUTHORITY will furnish utilities. CONTRACTOR personnel will have continuous secured access.

9.4.5.2 The CONTRACTOR will provide ASA business office, Montgomery location, with a technical support staff member available during the business day (Monday through Friday, 8 a.m. till 5 p.m.) to assist Montgomery staff including but not limited to the following activities:

- Technical support in and around the Montgomery area, and the southern portion of the State;
- Technical presentations to include AUTHORITY programs and capabilities; AUTHORITY client base, and prospective AUTHORITY clients.

9.4.6 Transition Period (Contract Award date through June 30, 2023)

9.4.6.1 For the convenience of the AUTHORITY, during the period of Contract Award date thru June 30, 2023, the AUTHORITY will provide temporary office space, with appropriate connectivity and utilities for the CONTRACTOR to locate and accomplish build up for an operations switchover at ASC. The CONTRACTOR shall be required to have adequate staff, as determined by the AUTHORITY, to support the daily operations and related client activity during the uncompensated transition period.

9.4.6.2 The CONTRACTOR shall appoint an individual to work with the Incumbent CONTRACTOR and the AUTHORITY to ensure the integrity of the proposed system is maintained and is viable through the switchover period. The CONTRACTOR'S build up shall include installation of appropriate connectivity hardware/software in order to ensure operations switchover without any gap occurring in current services. An AUTHORITY appointed individual will be available to assist in communication and coordination involving the incumbent CONTRACTOR and the incoming CONTRACTOR.

9.4.6.3 The incoming CONTRACTOR shall provide the AUTHORITY monthly reports reflecting progress being made to initiate delivery of all services, effective July 1, 2023. The incoming CONTRACTOR shall not be compensated for any preparation activity conducted in advance of the operations switchover to the new service which will occur effective 12:01 AM, C.S.T., July 1, 2023.

9.4.7 Inventory Accounting

CONTRACTOR must provide a complete and updated inventory of hardware/software used in support of the services required under the Contract. Such inventory shall be updated continuously and reported
quarterly to the AUTHORITY to reflect the current configuration of the hardware/software in providing these services under the Contract.

9.4.8 Continuation of Services Upon Normal Contract Expiration

9.4.8.1 The CONTRACTOR and the AUTHORITY agree that the Contract resulting from this RFP is for the provision of professional services, primarily those of network management engineers, network personnel, computer hardware engineers, scientists, programmers and technicians. The E-rate eligible portion of the Contract resulting from this RFP is for managed Internet access. The CONTRACTOR and the AUTHORITY agree that the network and computer hardware and software services used in support of said professional services shall be under warranty and/or proof of maintenance contracts. The CONTRACTOR and the AUTHORITY agree that the sole beneficiary of the functional utility of the provided hardware and software services in support of said professional services will be the AUTHORITY and its clients unless otherwise prohibited (see Section 5) by E-rate rules and regulations.

9.4.8.2 Intellectual Property Rights

At the end of the Contract, the selected CONTRACTOR shall be required to transfer or assign its intellectual property rights in any software developed during the term of the Contract which is necessary for the continued operations of the supported systems.

9.4.9 Warranties and Licenses

The CONTRACTOR throughout the term of the Contract resulting from this RFP is responsible for maintaining all warranties and licenses pertaining to the “Right to Use” of the CONTRACTOR’S network hardware, software and systems used for the managed services as described in the RFP. Any software provided to the AUTHORITY pursuant to the Contract resulting from this RFP shall be licensed pursuant to the software manufacturer’s standard software licensing agreement.

9.4.10 Post-Contract Transition Services

Upon termination of the Contract resulting from this RFP and in the event a different CONTRACTOR is awarded the subsequent Contract, the then Incumbent CONTRACTOR agrees to provide continuing services as the AUTHORITY transitions itself to receive such services from a new CONTRACTOR. The services required are those as defined under the Contract resulting from this RFP (including any amendments and Contract Work Orders) and shall be provided on a month-to-month basis. Charges for these services will be based on the payment schedule and Contract Work Orders then current at the time of Contract termination.

If the extension of the Contract necessitates additional funding beyond that which was included in the original Contract, the increase in the
AUTHORITY’S maximum liability will be affected through an amendment to the Contract.

Subject to the agreement of the parties, title to hardware and associated software being utilized by the then-incumbent CONTRACTOR at the end of the Contract term may become the property of the succeeding CONTRACTOR at book value including depreciation at the conclusion of the Contract.

9.4.11 Disclosure of Information

All materials or information (e.g., verbal, written or electronic) furnished under the Contract resulting from this RFP relating to CONTRACTOR and AUTHORITY business functions or processes shall be considered “Proprietary and Confidential”. Materials include, but not limited to, memoranda, organizational charts, official correspondence, statewide networking and Internet activity, studies, plans, reports, surveys, analyses, and/or projections (except such information and materials as may already be public knowledge or established to be in the public domain). The CONTRACTOR and AUTHORITY personnel and its designees shall not disclose any of such materials or information without the written approval of the other party.

All Contract and AUTHORITY program related information, of any nature whatsoever, shall not be subject to disclosure or release by CONTRACTOR without prior written permission from the AUTHORITY.
10 RFP ATTACHMENTS

This RFP utilizes PDF attachments as well as Excel workbooks. The PDF documents are included in the following pages. Additional attachments are Excel workbooks that must be downloaded with this RFP document.
### 10.4.1 Certification of Compliance

Proposer Name: _____________________________________________________________

Signature Authority (printed) _________________________________________________

Signature Authority Title (printed) ____________________________________________

By indication of the authorized signature below, the **PROPOSER** does hereby make certification and assurance of the **PROPOSER’S** compliance with:

1. The laws of the State of Alabama;
2. Title VI of the Civil Rights Act of 1964;
3. The Equal Employment Opportunity Act and the regulations issued there under by the federal government;
4. The Americans with Disabilities Act of 1990 and the regulations issued there under by the federal government;
5. The condition that the submitted Proposal was independently arrived at, without collusion, under penalty of perjury;
6. The condition that no amount shall be paid directly or indirectly to an employee or official of the State of Alabama as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, Subcontractor, or consultant to the Proposer in connection with the procurement under this RFP;
7. The condition that if selected workmen's compensation insurance will be provided as required by the laws of Alabama;
8. The State of Alabama PROPOSER Disclosure form; and
9. Other terms and conditions as described in the Attachments as they apply.

__________________________________________________________

Authorized Signature                                                                                                                                                Date
10.4.2 Proposer Financial Resources Profile

Complete the following Balance Sheet and Income Statement tables from the Independently Audited Financial Statement (if available) or Tax Returns (if no Independently Audited Financial Statement is available). **Attach the source documents to this sheet.**
## Balance Sheet

<table>
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<th>2021</th>
<th>2020</th>
<th>2019</th>
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<tbody>
<tr>
<td><strong>ASSETS</strong></td>
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<tr>
<td>Cash and cash equivalents</td>
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<tr>
<td>Short-term investments</td>
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<tr>
<td>Accounts receivable, net</td>
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<tr>
<td>Prepaid expenses</td>
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<tr>
<td>Inventory</td>
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<td>Other current assets</td>
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<td>Total current assets</td>
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<td>Long-term investments</td>
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<td>Property and equipment</td>
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<tr>
<td>Other long-term assets</td>
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<td>Total assets</td>
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<td><strong>LIABILITIES</strong></td>
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<td>Accounts payable</td>
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<tr>
<td>Accrued liabilities</td>
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<td>Short-term debt</td>
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<tr>
<td>Current portion of long-term debt</td>
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<td>Other current liabilities</td>
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<td>Total current liabilities</td>
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<td>Long-term debt, less current portion</td>
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<td>Other long-term liabilities</td>
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<td>Total liabilities</td>
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<tr>
<td><strong>STOCKHOLDERS’ EQUITY</strong></td>
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<td>Common stock</td>
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<tr>
<td>Additional paid-in capital</td>
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<td>Retained earnings</td>
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<td>Total stockholders’ equity</td>
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<td><strong>LIABILITIES &amp; STOCKHOLDERS’ EQUITY</strong></td>
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Proposer Organization: _____________________________ Date: ________________

Authorized Signature: ______________________________ Title: ________________
<table>
<thead>
<tr>
<th>Income Statement</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
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<tbody>
<tr>
<td><strong>REVENUES</strong></td>
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<tr>
<td>Sales, net</td>
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<tr>
<td>Other revenues</td>
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<tr>
<td><strong>Total revenues</strong></td>
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<tr>
<td><strong>COST OF GOODS SOLD</strong></td>
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<tr>
<td><strong>GROSS PROFIT (LOSS)</strong></td>
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<tr>
<td><strong>OPERATING EXPENSES</strong></td>
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<tr>
<td>Selling, general, and administrative</td>
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<td>Depreciation</td>
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<td>Bad debt expense</td>
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<td>Other operating expenses</td>
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<td><strong>Total operating expenses</strong></td>
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<tr>
<td><strong>OPERATING INCOME (LOSS)</strong></td>
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<tr>
<td><strong>OTHER INCOME (EXPENSE)</strong></td>
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<tr>
<td>Interest income</td>
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<tr>
<td>Interest expense</td>
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<tr>
<td>Other income (expense)</td>
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<tr>
<td><strong>Total other income (expense)</strong></td>
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<tr>
<td><strong>INCOME (LOSS) BEFORE TAXES</strong></td>
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<tr>
<td>Income taxes</td>
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<tr>
<td><strong>NET INCOME (LOSS)</strong></td>
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Proposer Organization: _____________________________ Date: ________________

Authorized Signature: _____________________________ Title: ________________
10.4.3. Key Position Resume Sheet

All Key Positions must attach complete resume to this sheet

Proposer: ____________________________  Key Position: ____________________________

<table>
<thead>
<tr>
<th>Information</th>
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<tbody>
<tr>
<td>Full Name: _____________________________________________</td>
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<tr>
<td>Last  First  M.I</td>
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<tr>
<td>Are you a US Citizen? ☐ Yes ☐ No</td>
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<tr>
<td>If no, are you authorized to work in the US? ☐ Yes ☐ No</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Education and Experience</th>
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<tbody>
<tr>
<td>College: ________________  Degree: ______________________</td>
</tr>
<tr>
<td>Certification: __________  Year Received: _____________</td>
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<tr>
<td>Certification: __________  Year Received: _____________</td>
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</tbody>
</table>

Work Experience: Describe your work experience related specifically to the Request for Proposal to which you are responding. Please list most recent job first. To add work experience, copy the format below and add additional sheets as needed.

<table>
<thead>
<tr>
<th>References</th>
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<tbody>
<tr>
<td>Please list three professional references</td>
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</table>

Name: ____________________________  Relationship: ______________________
Company: ____________________________  Relationship: ______________________

Name: ____________________________  Relationship: ______________________
Company: ____________________________  Relationship: ______________________

Company: ____________________________  Relationship: ______________________
Name: ____________________________  Relationship: ______________________

Alabama Supercomputer Authority  Page 142 of 154
Previously Employment

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
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<table>
<thead>
<tr>
<th>Job Title</th>
<th>Years Employed</th>
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</table>

Reason for leaving:

Disclaimer and Signature

By submitting this data sheet to the AUTHORITY, the Candidate and PROPOSER certify that, to the best of their knowledge and belief, all the information on and attached to this data sheet is true, correct, complete, and made in good faith. The candidate further authorizes the release of all relevant prior employment, military service, academic/school, and criminal records. False or fraudulent information on or attached to this data sheet may be grounds for disqualifying a candidate or firing a candidate once work has begun. Any information provided to the AUTHORITY may be investigated.

By submitting this data sheet to the AUTHORITY, the Candidate and PROPOSER certify that both parties understand the entire scope of requirements for this position as defined in the RFP and the Candidate agrees to be submitted for consideration exclusively by this PROPOSER. Any candidate that is submitted by more than one PROPOSER for a line item will be considered disqualified.

Candidate
Signature ____________________________________________ Date: _________________

Proposer
Signature ____________________________________________ Date: _________________
10.4.4 Professional Services Job Descriptions

**Program Director**
Provides overall management and leadership and is responsible for the professional services contractor’s execution of all aspects of the program. Ensures Contract performance is delivered to the AUTHORITY based on service delivery to its clients. Supports AUTHORITY engagements with education, government, and industry stakeholders and decision makers.

Requires a minimum of 12 years’ experience in technology management and a Bachelor’s degree in engineering, computer science, or related discipline.

**Senior HPC Applications Analyst**
Responsible for supporting and facilitating research on the AUTHORITY supercomputer resources by assisting researchers with application packages. Supports supercomputing activities by optimizing and migrating code and training new users on high performance computing architectures. Requires fluency in a variety of Unix based operating systems. Interfaces with and makes technical presentations to Alabama’s academic community. Provides collaborator assistance to research efforts.

Requires a minimum of 10 years’ experience and a Ph.D. in an engineering, science, or mathematics discipline.

**Senior HPC Systems Analyst**
Configures and supports supercomputer systems and applications, including account administration, system administration, system optimization, and user support. Supports installation of applications (both user-written and third party/ISV). Implements and manages queue systems and assists HPC users with queue scheduling. Must have experience with parallel file systems and parallel programming. Requires expertise in current HPC technologies to perform HPC and storage system architecture analysis and design for future resource planning.

Requires a minimum of 10 years’ experience with HPC system administration, code migration, and applications and a Bachelor’s degree or higher in an engineering, computer science, or mathematics discipline. Master’s degree preferred.

**HPC Systems Analyst**
Configures and supports supercomputer systems and applications, including account administration, system administration, system optimization, and user support. Supports installation of applications (both user-written and third party/ISV). Supports implementation and management of queue systems. Assists with HPC and storage system architecture analysis and design.
Requires a Bachelor’s degree in computer science or related field or a minimum of 5 years’ experience in system administration and integration. Requires a minimum of 2 years’ HPC system administration, code migration, and applications.

**Network Operations Manager**

Responsible for the management of the AUTHORITY’s statewide education network and delivery of technical services including day-to-day network operations for the program. Leads network administration, network configuration, network troubleshooting, client consultation, and DNS management. Responsible for developing senior technical leadership, evaluating new technologies, and presenting recommendations to the AUTHORITY. Requires broad understanding and knowledge of networking, computing, network and systems security, hosting, data center management, and IT systems development. Requires an understanding of Disaster Recovery and Business Continuity planning. Provides ongoing leadership in networking technologies and protocols to other team members and clients.

Requires a minimum of 12 years’ experience in technology management and a Bachelor’s degree in an engineering, science, or related discipline. Requires strong presentation and communication skills.

**Senior Network Engineer -Operations**

Responsible for advanced level technical operation and support of the AUTHORITY’s statewide education network and Internet services. Leads network administration, network configuration, network troubleshooting, client consultation, and DNS management. Coordinates the installation of network and telecommunications systems in remote locations. Interfaces and coordinates with PROPOSERs and an extensive, broad clientele with various levels of technical knowledge and skills. Provides advanced technical support to clients. Provides ongoing leadership in networking technologies and protocols to other team members and clients.

Requires a minimum of 8 years’ experience in LAN/WAN design and troubleshooting, router, switch and firewall configuration, BGP4 administration, IP Multicast, H.323, and quality of service deployment. Must have extensive knowledge of IPv4 and IPv6 protocols and the ability to support the migration to IPv6 when needed. Requires extensive experience with leased, wide-area data lines (DS0-3, OC-3, Ethernet, DWDM). Requires extensive multi-PROPOSER experience with LAN technologies including all standardized speeds of Ethernet (up to 100Gbps). Requires experience in managing and configuring both peering and transit scenarios with various clients and carriers including, but not limited to Internet2 and content provider networks. Must have the technical background and ability to self-educate and stay abreast of new networking technologies and trends. Requires strong presentation and communication skills. Requires a Bachelor’s degree in electrical or computer engineering or computer science. Cisco and Juniper certification required. Higher certification (Cisco Certified Network Professional (CCNP) or Juniper JNCIS) desirable. Requires fundamental understanding of Federal E-rate program and how it applies to technology designs and installed services.
Senior Network Engineer – Planning and Design
Leads the effort to evaluate future needs of a statewide education network and Internet services and plans for upgrades or configuration changes as required. Tracks network utilization patterns, including both bandwidth utilization as well as applications in use. Evaluates new technologies for use in the network. Maintains current understanding of evolving protocols, technologies, and applications. Recommends updates or changes to the network to meet anticipated future demands. Tracks and participates in community technical projects such as Internet2 and TransitRail. Provides ongoing instruction in network technologies and protocols to other team members and clients.

Requires a minimum of 8 years’ experience in LAN/WAN design and troubleshooting, router, switch and firewall configuration, BGP4 administration, IP Multicast, H.323, and quality of service deployment. Must have extensive knowledge of IPv4 and IPv6 protocols and the ability to support the migration to IPv6 when needed. Requires extensive, multi-PROPOSER experience with leased, wide-area data lines (DS0-3, OC-3, Metro Ethernet, DWDM). Requires extensive experience with LAN technologies including all standardized speeds of Ethernet (10Mbps to 100Gbps). Must have the technical background and ability to self-educate and stay abreast of new networking technologies and trends. Requires strong presentation and communication skills. Requires a Bachelor’s degree in electrical or computer engineering or computer science. Cisco or Juniper certification required.

Network Engineer
Supports the operation and maintenance of a statewide education network. Support includes design, configuration, client consultation, and troubleshooting. Installs network and telecommunications equipment in remote locations. Interfaces and coordinates with PROPOSERs and a large broad clientele with various levels of technical knowledge and skills. Provides technical support to clients.

Requires a minimum of 2 years’ experience with LAN/WAN (all standardized speeds of Ethernet from 10Mbps to 10Gbps) design and troubleshooting, router, switch, and firewall configuration and a Bachelor’s degree or equivalent in an engineering or computer science discipline. Cisco certification desirable.

Network Technician
Supports the operation and maintenance of the AUTHORITY’s statewide education network. Support includes installation, configuration and troubleshooting. Installs network and telecommunications equipment in remote locations. Interfaces and coordinates with PROPOSERs and a large broad clientele with various levels of technical knowledge and skills. Provides technical support to clients.

Requires a minimum of 2 years’ experience with Ethernet technologies for both LAN and WAN use (All standardized speeds of Ethernet from 10Mbps to 100Gbps). Requires an associate degree or equivalent in a technical discipline or the ability to demonstrate in depth understanding of networking systems and protocols.
Service Delivery Manager
Provides overall service management leadership ensuring excellence in all services delivered. Works with a cross functional team of program leadership across all technical areas to achieve superior service and to execute, maintain, and improve the underlying services through the use of IT best practices in industry standard ITIL. Responsible for the compliance of the program through policy enforcement and program planning. Ensure all contractor staff are complying with the rules and regulations set by the AUTHORITY.

Requires minimum of 10 years’ experience in technology management and a Bachelor’s degree or higher in computer science, engineering or related field.

Help Desk Coordinator
Responsible for the day-to-day operations of the AUTHORITY’s Help Desk and supervises Help Desk specialists. Reviews tickets and other work products, and coaches team members to ensure a high level of customer satisfaction. Responsible for scheduling the Help Desk specialists to provide full coverage. Helps facilitate difficult customer service issues.

Requires a minimum of 7 years’ experience with help desk operations. Requires a Bachelor’s degree in a technical discipline or equivalent.

Help Desk Analyst
Supports operations of a statewide network and the Alabama Virtual Library. Responsibilities include answering phone calls and e-mail messages, escalating trouble tickets to engineers and technicians, monitoring the statewide network, troubleshooting network outages, and interfacing with clients. Provides technical support to clients.

Requires a minimum of 2 years’ experience with help desk operations. Requires an associate degree or equivalent in a technical discipline.

Help Desk Technician
Supports operations of a statewide network and a supercomputer center. Responsibilities include answering phone calls and e-mail messages, monitoring the network, troubleshooting network outages, and keeping customers informed.

Requires a minimum of 2 years’ experience with help desk operations. Requires an associate degree or equivalent in a technical discipline.

Applications Development Manager
Provides overall direction and strategy for application development, while ensuring the delivery of high-quality software products. Develops team plans and work schedules for projects based on the client
requirements. Coordinates meetings with clients to obtain customer feedback and to ensure customer satisfaction. Responsible for developing senior technical leadership, client relationships, exploring new business opportunities, managing application development staff and communicating effectively with program management. Provides technical guidance and troubleshooting when necessary. Ensuring that the most effective methodologies are being used to deliver solid software products on schedule.

Requires a B.S. degree in Computer Science or Information Systems and a minimum of 10 years of application development experience. Requires management or technical management experience.

**Senior Application Developer**
Provides leadership to application development teams to create and update complex web application solutions. Performs advanced analysis and design for the development of web applications. Develops team plans and work schedules for projects based on the client requirements. Coordinates meetings with clients to obtain customer feedback and to ensure customer satisfaction. Designs, implements, and maintains websites and databases.

Requires a Bachelor’s degree in Computer Science or Information Systems and a minimum of 7 years of application development including experience in several programming languages.

**Web Developer**
Designs, develops, and builds websites and web-based applications using HTML, Drupal, CSS, ASP.NET/PHP, and JavaScript. Participates in requirements analysis and design reviews.

Requires a minimum of 2 years of hands-on web development or programming experience with SQL, XML, HTML, Drupal, CSS, and C#/PHP. Requires full understanding of Internet design.

**Graphic Designer**
Responsible for front-end graphical design, artistry, and branding for the AUTHORITY and client web sites and web applications. Experience with Adobe Creative Suite, HTML, Drupal, CSS, SASS, and JavaScript are required. Experience with content management system (CMS), SharePoint, and Agile Scrum is a plus.

Requires a Bachelor’s degree in Art or Computer Science or Information Systems. Requires a minimum of 2 years’ hands-on graphic design, CSS, and JavaScript experience. Requires understanding of Internet design issues (browser usability, cross-platform compatibility, color and quick loading of images, etc.)

**Database Analyst**
Responsible for architecting database designs, hardware capacity and resource planning, advanced query tuning, stored procedures, troubleshooting database issues, monitoring and optimizing database
performance, and working with a team to define requirements, design and implement database systems.

Requires a Bachelor’s degree in Computer Science or Information Systems and proficiency with SQL databases, stored procedures, and database modeling. Requires a minimum of 5 years’ database administration and development experience. Experience with software development/design and Agile Scrum is a plus.

Applications Developer
Develops web-based applications including requirements analysis, design, coding/implementation, test, delivery, and training. Develops team plans and work schedules for projects based on the client requirements.
Coordinates meetings with the client to develop software requirements, obtains customer feedback, and ensures compliance with customer needs. Designs, implements, and maintains websites and databases.

Requires a Bachelor’s degree in Computer Science or Information Systems and proficiency with SQL databases and stored procedures. Knowledge of graphic design software is a plus and Agile Scrum is a plus.

Systems Admin Manager
Responsible for advanced level support of server and storage systems used for network operations, e-mail, web, and database system applications. Support includes configuration, maintenance, backup, and monitoring of server systems for a variety of applications. Duties include securing, patching, upgrading, and monitoring onsite and offsite servers for malicious activity, and creating backups for onsite and offsite systems. Responsible for the installation and management of security, anti-virus, and anti-spam software and the installation and management of computer hardware. Development duties include software to support servers and client applications. Technical support duties for clients include analyzing client requirements, acquiring, and configuring servers to meet these requirements, and interfacing and coordinating with PROPOSERs and clients with various levels of technical knowledge and skills.

Requires a Bachelor’s degree in an engineering, science, or mathematics discipline with a minimum of 5 years’ experience with Linux, SQL databases, PERL, JavaScript, PHP, Active Directory and Group Policy. Linux certifications desirable.

Systems Analyst
Responsible for support of server and computer systems. Support includes securing, patching, upgrading, and monitoring onsite and offsite servers for malicious activity, and creating backups for onsite and offsite systems.
Responsible for software installation and hardware upgrades. Development duties include software to support servers and client applications. Technical support duties for clients include basic technical
support, providing client security consultations and interfacing and coordinating with PROPOSERs and clients with various levels of technical knowledge and skills.

Requires a minimum of 2 years’ experience with Linux, SQL databases, JavaScript, and PHP. Requires a Bachelor’s degree or equivalent in an engineering, science, or mathematics discipline. Experience with Active Directory and Group Policy desirable.

**Security Operations Manager**
Responsible for management of the AUTHORITY’S Security Operations Center and implementation of the Cybersecurity Plan. Responsible for security architecture and monitoring, maintaining and improving the AUTHORITY’S cybersecurity posture. Utilizes SIEM tools to analyze, troubleshoot and investigate security-related issues. Works collaboratively with Cybersecurity Analysts to remediate or mitigate security-related issues. Evaluates new technologies for security infrastructure.

Requires a Bachelor’s degree in computer science or related field with a minimum of 10 years’ experience in security operations, Master’s degree preferred. Requires experience with MS-ISAC, next generation firewalls, and centralized network security management tools. CISSP and CISM Certifications desirable.

**Cybersecurity Analyst**
Collaborates with Security Operations Manager to ensure network and IT infrastructure security is maintained. Responsible for proactively monitoring to detect and implement steps to mitigate cyber events. Reviews and investigates real-time alerts within the network and communicates with clients. Responsible for conducting vulnerability scans and assessments prioritized by risk severity.

Requires a Bachelor’s degree in computer science or related field with a minimum of 3 years’ experience in security operations. Requires experience with MS-ISAC, next generation firewalls, and centralized network security management tools. CompTIA Security+ certification highly desirable.

**Business Operations Manager**
Provides leadership to the business services and E-rate team. Ensures accurate and timely delivery of quotes, cost summaries, contract work orders, E-rate invoices, and other work products. Works closely with technical team to develop pricing models and ensure E-rate compliance of all E-rate services.

Requires a Bachelor’s degree in business administrations, computer Sciences and 10 years’ business management experience with 5 years of E-rate experience. Must be able to pick up on technical concepts quickly.

**Senior E-rate Specialist**
Ensures all E-rate processes are complete in a timely manner. Responsibilities include providing support to the AUTHORITY for audits and financial inquiries. Maintains, develops, and updates E-rate
documentation and E-rate forms as required. Track and manage telco orders, disconnects, and billings. Must have excellent skills with Excel.

Requires a minimum of 5 years’ experience with the E-rate process and procedures. Requires a Bachelor’s degree in business administration or equivalent.

**Business Analyst**
Assists in the development of quotes and E-rate Proposals. Generates quotes for other proposed network connections, upgrades, and services. Track and manage orders and billings for lease items. Assists in maintaining, developing, and updating financial records. Assist with creating and submitting invoices including those for the E-rate program. Requires excellent skills with Excel and Word.

Requires a minimum of 2 years’ experience in quotes, billing, and financial analysis. Requires a Bachelor’s degree in business administration or equivalent. Experience in E-rate processes preferred.

**Technical Outreach Specialist**
Communicates with clients to review services and present recommendations to the AUTHORITY on improved services to meet individualized needs. Attends and represents the AUTHORITY at conferences scheduled throughout the year. Maintains records of meetings to ensure proper follow-up.

Requires a Bachelor’s degree with a minimum of 2 years’ experience in marketing, outreach, and technical expertise. Technical experience with K12 school systems and E-rate is preferred.

**Administrative Assistant**
Provides administrative support to the project staff. Responsible for the preparation of expense reports and purchase requisitions. Creates reports, presentations, copies, and files. Responsible for conference booth reservation including attendees and scheduling.
Requires an associate degree or equivalent experience.
10.5 Reference Table Workbook

Download separate Excel workbook along with RFP document.

Reference Table Workbook Tabs:

10.5.1 AREN Services List
10.5.2 WiFi Requirements
10.5.3 AREN L2 Transport Reqs
10.5.4 AREN Layer 3 VPN Services
10.5.5 ASA Datacenter space
10.5.6 Managed Hosting Services
10.5.7 HPC Software
10.5.8 App Dev Project List
10.5.9 Conference Trade Show
10.6 Cost Proposal Workbook

Download separate Excel workbook along with RFP document.

Section 6: Cost Proposal Workbook tabs:

Principal Cost
Sub-Section Cost
5.1a AREN Fixed Fees
5.1b AREN Bandwidth dependent
5.1c AREN Internet & WAN Costs
5.1d AREN Other Services Costs
5.1e Administrative Overhead Percentage
5.2 Datacenter Services
10.9 Service Level Agreements (SLAs)

Service Level Agreements are related to services in this RFP. The **AUTHORITY** and the **CONTRACTOR** shall mutually establish additional formal SLAs for all services provided under the Contract over the Contract period and shall become a part of the contract. SLAs are defined as statements in measurable terms of the “level of service” to be provided by the **CONTRACTOR**. SLAs may be reviewed and reestablished at any time depending on the services to be provided under the Contract.

- Section 5.1.1.4 AREN Performance requirements
- Section 5.3.2 Participate in SOC 2 Type 2 audit and compliance
- Section 5 Reports identified throughout technical requirements section
- Section 8.3.5 Replace Key position within 60 days with qualified person