Procurement and Contracting Services

Request for Proposals for a High-Powered Compute (HPC) System

**Please mark all proposal submission
Files with the following information**

**Sealed RFP # L302501
Due on March 20th, 2025 no later than 1:00 PM, MST**

TABLE OF CONTENTS
For
REQUEST FOR PROPOSALS NO. L302501

PROCUREMENT AND CONTRACTING SERVICES
REQUEST FOR PROPOSALS, RFP L302501

1.0   STATEMENT OF WORK

1.1   Summary. The Arizona Board of Regents (ABOR), on behalf of the University of Arizona, is soliciting proposals from interested vendors to furnish the University with the next generation of HPC system (HPC 2025) with the goal to match, the capacity and capabilities provided by the current generation of UA HPC systems (HPC2020) as well as increasing GPU capabilities

1.2   Coverage and Participation. The intended coverage of this RFP and any Agreement resulting from this solicitation shall be for the use of all Departments at the University of Arizona. The other State Universities, Arizona State University (ASU) and Northern Arizona University (NAU), along with Pima Community College (PCC) and any other educational institution or Governmental entity may access an Agreement resulting from this solicitation issued and administered by the University of Arizona.

2.0   DEFINITIONS

2.1   Agreement / Contract. All types of agreements entered into by the Arizona Board of Regents, regardless of what they may be called, for the procurement of materials, services or construction, or the disposal of materials. Meaning is interchangeable.

2.2   Customer. Unless otherwise implied by the context of the specific provision within this RFP, "Customer" means a customer of the vendor, other than the University.

2.3   **Contractor.** Same as Successful Vendor.

2.4   **May, Should.** Indicates something that is not mandatory but permissible, recommended or desirable.

2.5   **MST.** Mountain Standard Time. We **do not** observe Daylight Savings Time.

2.6   **Must, Shall, Will.** Indicates a mandatory requirement. Failure to meet these mandatory requirements may result in the rejection of your proposal as non-responsive.

2.7   **Proposal.** The entirety of the vendor's responses to each point of this RFP, including any and all supplemental offers or information not explicitly requested within this RFP.

2.8   **Proprietary Information.** Information held by the owner that if released to the public or anyone outside the owner's organization, would be detrimental to its interests. It is an issue of fact rather than opinion. Pricing and/or revenues cannot be considered proprietary or confidential.

2.9   **Provider.** Same as Vendor.

2.10   **Request for Proposals (RFP).** A competitive process under which discussions and negotiations are allowed, it is not to be confused with a Request for Bid (RFB), in which goods or services are precisely specified and price is substantially the only competitive factor. This RFP provides the University the flexibility to negotiate to arrive at a mutually agreeable relationship. Price will be considered, but will not be the only factor of evaluation.

2.11   **Respondent.** Same as Vendor.

2.12   **Response.** Same as Proposal.

2.13   **Responsible Vendor.** A person who has the capability, including necessary experience, to perform the contract requirements; who has the integrity and reliability which will ensure good faith performance and appropriate quality of the materials, services, construction or construction services, to be provided; and who is in compliance with any and all licensing requirements of the State of Arizona.

2.14   **Responsive Vendor.** A person who submits a proposal which conforms in all material respects to the Request for Proposals.

2.15   **Successful Vendor.** Any vendor selected by the University to receive a notice of award as a result of this RFP and to enter into a contract to provide the University with the products or services sought by this RFP

2.16   **Supplemental Agreement.** Any supplemental terms and conditions agreed to by the parties in writing, which take precedence over all other documents governing the transaction.

2.17   **Supplier.** Same as Vendor.

2.18   **University.** Arizona Board of Regents (ABOR), a body corporate, for and on behalf of the University of Arizona.

2.19   Vendor. For purposes of this RFP, "Vendor" means any entity responding to this RFP with the intention of winning the resulting award of contract, performing the work, and/or delivering the goods specified herein.

2.20   Vendor's Proposal. Same as Proposal.

2.21   Vendor's Response. Same as Proposal.

3.0   GENERAL INFORMATION AND INSTRUCTIONS TO PROPOSERS

3.1   Original RFP Document. The Office of Procurement and Contracting Services shall retain the RFP, and all related terms and conditions, exhibits and other attachments, in original form in an archival copy. Any modification of these, in the vendor's submission, is grounds for immediate disqualification.

3.2   About the University. For information about the University of Arizona, please visit the University's Internet web page at: www.arizona.edu/. For specific demographic information, visit https://uair.arizona.edu/content/overview.

University Purpose and Core Values. The University of Arizona's purpose is working together to expand human potential, explore new horizons and enrich life for all. To fulfill this purpose, the University has adopted Core Values that apply to all faculty, staff, and students, as well as to those doing business with the University. The Core Values are central to the culture of the University, and Vendors are encouraged to review and uphold the following:

- Integrity – Be honest respectful and just
- Compassion – Choose to Care
- Exploration – Be insatiably curious
- Adaptation – Stay open-minded and eager for what's next
- Inclusion – Harness the power of diversity
- Determination – Bear Down

For additional information regarding the University's Purpose and Core Values, please visit https://www.arizona.edu/purpose-values.

3.3   Schedule of Events. The following is the tentative schedule that will apply to this RFP, but may change in accordance with the University's needs.

11-14-24	Issuance of RFP
01-02-25	Deadline for preproposal conference and walkthrough RSVP
01-14-25	Pre-Proposal Conference / Vendors Visit University Site(s). 2:00 PM MST.
01-28-25	Technical Questions/Inquiries due no later than 1:00 PM, MST
03-20-25	RFP is Due, no later than 1:00 PM, MST
04-22-25	Complete Evaluations
05-22-25	Best and Final Offer Due Date if requested
TBD	Award Notification
TBD	Receipt of Bonds and Insurance

3.4   **Pre-Proposal Conference**. A non-mandatory pre-proposal conference will be held for vendors who intend to respond to this RFP. The purpose of the conference is to provide for questions and answers regarding terms, conditions, or specifications of the RFP.

Notification of attendance should be made to Zane Forier, at telephone # 520-626-2405, or email: zfforier@arizona.edu no later than January 2nd 2025. The Pre-Proposal Conference will be held at

        Date: 01-14-2025
        Time: 2:00 PM MST
        Place: TBD. Details will be sent to interested parties.

The Buyer may choose to call for additional pre-proposal conference(s) if, in the sole judgment of the Buyer, there is a need for such conference(s) in order to promote competition.

3.5   **Pre-Proposal Site Visit**. A non-mandatory pre-proposal site visit will be held for vendors who intend to respond to this RFP. The purpose of the site visit is to acquaint the vendors with the conditions under which the work must be performed. The University will not be responsible for additional compensation because the vendor did not acquaint themselves with all the available conditions and information nor shall it relieve the vendor from any responsibility for properly performing the project work.

Notification of attendance should be made to Zane Forier at telephone # 520-626-2405 or email: zfforier@arizona.edu no later than January 2nd 2025.

        Date: 01-14-2025
        Time: 2:00 PM, MST
        Place: TBD. Details will be sent to interested parties.

The Buyer may choose to call for additional pre-proposal site visit(s) if, in the sole judgment of the Buyer, there is a need for such visit(s) in order to promote competition.

3.6   **Accommodations for People with Disabilities.** If the vendor or any of the vendor's employees participating in this RFP need, or have questions about the University's accommodations for people with disabilities, please make arrangements with Zane Forier at telephone # 520-626-2405, or email address zfforier@arizona.edu. Such requests should be made as early as possible to allow time to arrange the accommodation(s).

3.7   **PROPOSAL PREPARATION INSTRUCTIONS**

    3.7.1   **Vendor's Understanding of the RFP.** In responding to this RFP, the vendor accepts the responsibility fully to understand the RFP in its entirety, and in detail, including making any inquiries to the University as necessary to gain such understanding. The University reserves the right to disqualify any vendor who demonstrates less than such understanding. Further, the University reserves the right to determine, at its sole discretion, whether the vendor has demonstrated such understanding. Related to this, the University's right extends to cancellation of award if award has been made. Such disqualification and/or cancellation shall be at no fault, cost, or liability whatsoever to the University.

    3.7.2   **University Provides Information in Good Faith without Liability.** All information provided by the University in this RFP is offered in good faith. Individual items are

subject to change at any time. The University makes no certification that any item is without error. The University is not responsible or liable for any use of the information, or for any claims attempted to be asserted therefrom.

3.7.3   **Verbal versus Written Communication.** Verbal communication shall not be effective unless formally confirmed in writing by the specified University procurement official in charge of managing this RFP's process. In no case shall verbal communication override written communication.

3.7.4   **Questions, Communications and Inquiries between the University and Vendors.** *All* **Vendor inquiries, questions and requests for clarification related to this RFP are to be directed, in writing via email**, *ONLY* to the Buyer listed below. Once this RFP has been sent out, Vendors **are not to contact any University Department**, other than Procurement and Contracting Services, concerning this RFP**, or risk disqualification (see Section 3.7.1 above)**:

Attn: Zane Forier
Telephone No. 520-626-2405
Email Address: zfforier@arizona.edu

Applicable terms and conditions herein shall govern communications and inquiries between the University and vendors, as they relate to this RFP.

Informal communications shall include but are not limited to requests from/to vendors or vendors' representatives of any kind or capacity, to/from any University employee or representative of any kind or capacity, ***with the exception of the Purchasing Department***, for information, comments, speculation, etc. Inquiries for clarifications and information that will not require addenda may be submitted verbally to the Buyer named above, at any time.

Formal communications shall include but are not limited to the following.

- Questions concerning this RFP must be submitted in writing, and be received **no later than 01-28-2025 1:00PM MST**.
- Errors and omissions in this RFP and enhancements. Vendors shall bring to the University's attention any discrepancies, errors, or omissions that may exist within this RFP. Vendors shall recommend to the University any enhancements in respect to this RFP, which might be in the University's best interests. These must be submitted in writing, and be received **no later than 01-28-2025 1:00PM MST**.
- Inquiries about technical interpretations must be submitted in writing, and be received **no later than 01-28-2025 1:00PM MST.**
- Inquiries for clarifications / information that will *not* require addenda may be submitted verbally to the Buyer named above at any time during this process.
- Verbal and/or written presentations and pre-award negotiations under this RFP.
- Addenda to this RFP.

Informal communications shall cease on the date of distribution of this RFP and formal communications shall commence. On the date that the University notifies responding vendors of this RFP's results and executes the resulting contract with the successful Vendor, informal communications may resume and formal communications may cease.

3.7.5 **Addenda and the University's Response to Communications from Vendor.** The University will make a good-faith effort to provide a written response to each question or request for clarification that requires addenda within five (5) University business days.

All addenda will be posted to our web site only:

https://vendors.arizona.edu/rfpb-opportunities

➢ *Vendors who want the addenda supplied to them in another form must notify the buyer listed in this document. Otherwise, it will be the vendor's responsibility to check the web site for any additional information and addenda concerning this RFP.*

The University will not respond to any questions / requests for clarification that require addenda, if received by the University after 01-28-2025 1:00PM MST.

3.7.6 **Pricing and/or Revenue Proposal.** Vendors shall indicate pricing and/or revenue offers in the appropriate spaces and/or areas provided in this RFP. The University may presume and hold as the vendor's final offer all pricing and/or revenue offerings, whether stated as amounts or percentages, and/or whether or not offered on an all-or-none basis, if not specified by the vendor. The University may accept or reject in part or entirely the vendor's pricing and/or revenue offerings when such offerings are not on an all-or-none basis. Vendor's pricing and/or revenue proposals may not be modified after the RFP Due date and time unless University at its sole discretion decides that future negotiations will only enhance the Vendor's offer to University. Should University decide that such negotiations would not be in University's best interests, pricing and revenue offer by Vendor at Due date and time may be considered by University as the Vendor's best and final offer. Unless otherwise specifically proposed by the vendor, the University reserves the right to hold such pricing and/or revenue proposal as effective for the entire intended contract term. The University may prescribe the manner and method by which pricing and/or revenue offerings shall be communicated in the vendor's proposal. The University may reject any proposal in which the pricing and/or revenue offering does not conform to such prescribed manner and method. Vendors shall indicate pricing and/or revenue offers in the appropriate spaces and/or areas provided in this RFP. Vendors shall ensure that any departure from this condition results in an offer that is clearly cross-referenced to the applicable sections within this RFP. For any material departure from this condition, vendors shall provide clear and unambiguous explanations how the departure relates in detail to the applicable sections within this RFP. If the vendor responds with an "All-or-None" proposal, it shall be clearly and unambiguously marked as such.

3.7.7 **Revisions to the RFP.** The University may revise any part of this RFP for any reason by issuing addenda. **The University will communicate additional information and addenda to this RFP by posting them on our web site.**

https://vendors.arizona.edu/rfpb-opportunities

➢ **Vendors that want the revisions supplied to them in another way must notify the Buyer listed in this document of that request. Otherwise, it will be the vendor's responsibility to check the web site for any additional information and addenda concerning this RFP.**

Vendors are responsible for the information contained in such addenda, whether or not they acknowledge receipt. The University is under no obligation to communicate such addenda to vendors who notify the University that they will not be responding to this RFP. The University may determine whether an addendum will be considered as part of this RFP and/or as part of any resultant contract. **The University shall reject vendors' responses to addenda if such responses are received after the RFP Due date and time.**

3.7.8   **Attention to Terms and Conditions.**   Vendors are cautioned to thoroughly understand and comply with all matters covered under the Terms and Conditions section of this RFP. The successful Vendor is expected to enter into a form of agreement approved by the Arizona Board of Regents. The University agreement terms and conditions included in this RFP are intended to be incorporated into this agreement. **Proposals that are contingent upon any changes to these terms and conditions may be deemed to be non-responsive and may be rejected.**

3.7.9   **Required Signatures.** The University may reject any vendor's response if it is not signed as indicated and/or required by the areas, spaces, or forms provided within this RFP.

3.7.10   **Proposal Organization.** Vendors shall present proposals in a format that can be readily incorporated into a contract.   Vendors may present narrative proposals provided that such proposals follow the same outline and numbering scheme of this RFP, including full descriptive cross-references to all requirements listed in *Section 5.0*. **Vendors should ensure that their proposals include page numbers and are organized in a manner that will facilitate the University's evaluation of them. The University reserves the right to reject without prior notice and without liability of any kind or amount any proposal that it deems overly complex, disorganized, or difficult to evaluate.** The University reserves the right to make such a decision without any input or communication from any other party. Vendors shall ensure that, at a minimum, their proposals contain the components set forth in the following list.

> ➢ **Narrative Proposal that includes:**
>   - ○ **A comprehensive rack layout diagram per section**
>   - ○ **completed and signed Forms and certificates requested in sections 6.1, 6.2, 6.3 and 6.4 of this RFP, combined into a single PDF.**
> ➢ **Proposed quote in your organizations official format**
> ➢ **Response Sheet from Appendix C if applicable**
> ➢ **Response Sheet from Appendix D if applicable**

3.7.11   **Collusion Prohibited.**   In connection with this RFP, vendor collusion with other vendors or employees thereof, or with any employee of the University, is prohibited and may result in vendor disqualification and/or cancellation of award. Any attempt by the vendor, whether successful or not, to subvert or skirt the principles of open and fair competition may result in vendor disqualification and/or cancellation of award. Such disqualification and/or cancellation shall be at no fault or liability whatsoever to the University.

3.7.12   **Improper Business Relationships / Conflict of Interest Prohibited.** In connection with this RFP, each vendor shall ensure that no improper, unethical, or illegal relationships or conflict of interest exists between or among the vendor, the University,

and any other party to this RFP. The University reserves the right to determine the materiality of such relationships, when discovered or disclosed, whether intended or not; and to decide whether or not vendor disqualification and/or cancellation of award shall result. Such disqualification and/or cancellation shall be at no fault or liability whatsoever to the University.

3.7.13 Corrections, Changes, and Providing Information on Forms within the RFP. Vendors shall ensure that an authorized individual initials each correction using digital stamp or other markings visible in a digital format when providing information directly on pages, or copies thereof, contained within this RFP

3.7.14 Proposal Bond. "Not Applicable"

3.7.15 Performance and / or Payment Bonds. The Successful Vendor shall provide and pay for performance and/or payment bonds in accordance with Section 4.31 of the Terms and Conditions.

3.7.16 Anti-Kickback. In compliance with FAR 52.203-7, the University has in place and follows procedures designed to prevent and detect violations of the Anti-Kickback Act of 1986 in its operations and direct business relationships.

3.8   PROPOSAL SUBMISSION AND SUBSEQUENT ACTION

Proposals must be received by the date / time and uploaded to the University's secure box no later than March 20th 2025, 1:00PM MST.

Vendors, please be advised that it is *your sole responsibility* to ensure that your proposal is received as described in the paragraph above. The University shall not be responsible for any delays that may occur.

Proposals must be **uploaded** to:

Box Secure Upload:

https://arizona.app.box.com/f/2b280f8879b445239d61570805120526

Please title your response in the upload folder as:

RFP#L302501_VendorName_Response

Vendor please note: no more than four (4) files should be uploaded, you may include a redacted copy if necessary Required Files are:
- **Narrative Proposal that includes:**
  - **A comprehensive rack layout diagram per section**
  - **completed and signed Forms and certificates requested in sections 6.1, 6.2, 6.3 and 6.4 of this RFP, combined into a single PDF.**
- **Proposed quote in your organizations official format**
- **Response Sheet from Appendix C if applicable**
- **Response Sheet from Appendix D if applicable**

no later than March 20th 2025, 1:00PM MST. The University shall, at the specified Due date and time, accept all proposals that are otherwise in order. The University will allow interested

parties to be present via zoom for purposes of identifying which vendors have responded, if requested. The University will make no immediate decision at such time, and **there will be no disclosure of any information contained in any proposal until after formal notice of award and execution of any contract resulting from this RFP**. When multiple solicitations have been scheduled to open at the same date and time, the University will open solicitations that have interested individuals present in sequential order by solicitation number. **The University will hold unopened any proposals received after the Due date and time, and will not consider such proposals.** The University reserves the right to retain or dispose of such proposals at its discretion; however, the University may return such proposals to their related vendors, but only at such vendor's request and at no cost or expense whatsoever to the University.

If the University determines that due to an insufficient number of proposals received, it would be in the University's best interest, the University may extend the Due date in order to determine why other vendors did not respond and to encourage other vendors to respond.

3.8.1   Proposal Costs. The University is not liable in any manner or to any extent for any cost or expense incurred by any vendor in the preparation, submission, presentation, or any other action connected with proposing or otherwise responding to this RFP. Such exemption from liability applies whether such costs are incurred directly by the vendor or indirectly through the vendor's agents, employees, assigns or others, whether related or not to the vendor.

3.8.2   Withdrawal of RFP. Vendors may withdraw their proposals any time prior to the RFP Due date and time. Vendors may request to withdraw their proposals after the RFP Due date and any time prior to selection and notice of award. The University shall have sole authority to grant or deny such a request. In the event the University grants such a request, it may withhold issuing future RFP's to such vendors.

3.8.3   University's Right to Use Vendor's Ideas / Proprietary Information. If the vendor needs to submit proprietary information with the proposal, the vendor **shall ensure that it is enclosed in a separate redacted file from the proposal and that it is clearly designated and conspicuously labeled as such. The vendor may submit a full PDF for the committee and a redacted file for proprietary and confidential information within the guidelines below.**

The University shall have the right to use any ideas that are contained in any proposal received in response to this RFP, along with any adaptation of such ideas. Selection or rejection of the proposal shall not affect the University's right of use. Provided, however, that the University will, in good faith, honor any vendor information that is redacted and saved as a separate file from the proposal and clearly designated and conspicuously labeled as proprietary, and the University concurs that the information is proprietary. **The file must also contain the reason(s) why the enclosed material is to be considered proprietary.**

Trade secrets or other proprietary data contained in the proposal documents shall be maintained as confidential in accordance with procedures promulgated by the Procurement Officer and subject to limitations in Arizona or Federal law. **Pricing information cannot be considered proprietary or confidential**. The University shall not be liable in any manner or in any amount for disclosing proprietary information if such information is not clearly so designated and conspicuously so labeled. The University shall likewise not be liable if it did not know or could not have reasonably known that such information was proprietary. **At *no time* will the entire proposal be**

considered proprietary and be kept confidential. If the entire proposal is marked as confidential and/or proprietary and no redacted copy is sent, the University will not consider any part of the proposal confidential.

3.9 EVALUATION PROCESS AND AWARD

3.9.1 Contractual Intent / Right to Terminate and Recommence RFP Process. The University intends to contract with one or more vendors whose proposal(s) are considered to be in the best interests of the University. However, the University may terminate this RFP process at any time up to notice of award, without prior notice, and without liability of any kind or amount. Further, the University reserves the right to commence one or more subsequent RFP processes seeking the same or similar products or services covered hereunder.

3.9.2 Effective Period of Proposals. Under this RFP, the University shall hold that vendors' responses to this RFP shall remain in effect for a period of ninety (90) days following the Due date, in order to allow time for evaluation, approval, and award of the contract. Any vendor who does not agree to this condition shall specifically communicate in its proposal such disagreement to the University, along with any proposed alternatives. The University may accept or reject such proposed alternatives without further notification or explanation.

3.9.3 Proposal Acceptance/Rejection. The University reserves the right to reject any or all proposals. Such rejection may be without prior notice and shall be without any liability of any kind or amount to the University. The University shall not accept any proposal that the University deems not to be in its best interests. The University shall reject proposals submitted after the Due date and time.

3.9.4 Errors and Omissions in Vendors Proposals. The University may accept or reject any vendor's proposal, in part or in its entirety, if such proposal contains errors, omissions, or other problematic information. The University may decide upon the materiality of such errors, omissions, or other problematic information.

3.9.5 Determination of and Information Concerning Vendor's Qualifications. The University reserves the right to determine whether a vendor has the ability, capacity, and resources necessary to perform in full any contract resulting from this RFP. The University may request from vendors information it deems necessary to evaluate such vendors' qualifications and capacities to deliver the products and/or services sought hereunder. The University may reject any vendor's proposal for which such information has been requested but which the vendor has not provided. Such information may include but is not limited to:

- Financial resources
- Personnel resources
- Physical resources
- Internal financial, operating, quality assurance, and other similar controls and policies
- Resumes of key executives, officers, and other personnel pertinent to the requirements of the RFP
- Customer references
- Disclosures of complaints or pending actions, legal or otherwise, against the vendor

3.9.6   Apparently Conflicting Information Obtained by Vendor. The University is under no obligation whatsoever to honor or observe any information that may apparently conflict with any provision herein, regardless of whether such information is obtained from any office, agent, or employee of the University. Such information shall not affect the vendor's risks or obligations under a contract resulting from this RFP.

3.9.7   Rejection of Vendor Counter-offers, Stipulations and Other Exceptions. Any vendor exception, stipulation, counter-offer, requirement, and/or other alternative term or condition shall be considered rejected unless specifically accepted in writing by the University and thereafter incorporated into any contract resulting from this RFP.

3.9.8   Method of Award. Each response to this RFP will be reviewed for its overall competence, compliance, format, and organization. Proposals which the University deems overly complex, disorganized, or difficult to evaluate may be rejected in accordance with Section 3.7.10 of this RFP. The award shall be made to the responsive and responsible vendor whose proposal is determined to be the most advantageous to the University of Arizona, taking into consideration the following evaluation criteria listed in the relative descending order of importance. Pricing must be a criterion. However, the University is under no obligation whatsoever to select, as most responsive the proposal that demonstrates the lowest pricing.

Evaluation Criteria

The following criteria will be used as weighted factors in the evaluation of all proposals. The university will evaluate and award the CPU node offering in section 5.10 and the GPU node offering in section 5.11 separately.

CPU Nodes Evaluation Criteria (see section 5.10 for details)

- Cost per performance for the standard node configuration
- Buy-in cost and scalability of nodes
- Environmentals including floor space, power usage, heat output and performance density
- References and reputation
- Additional features and/or capabilities that add value to the proposal

CPU Nodes Evaluation Criteria (see section 5.11 for details)

- Cost per performance for the GPU node configuration
- Buy-in cost and scalability of nodes
- Environmentals including floor space, power usage, heat output and performance density
- References and reputation
- Additional features and/or capabilities that add value to the proposal

The contract will consist of the University's RFP, the proposal with any and all revisions, award letter, and/or purchase order, and/or the signed agreement between the parties, as stated in that agreement.

3.9.9   Selection, Negotiation, Additional Information. Although the University reserves the right to negotiate with any vendor or vendors to arrive at its final decision and/or to request additional information or clarification on any matter included in the proposal, it also reserves the right to select the most responsive and responsible vendor or

vendors without further discussion, negotiation, or prior notice. The University may presume that *any proposal is a best-and-final offer*.

3.9.10 Pre-Award Presentations. The University reserves the right to require presentations from the highest ranked vendors, in which they may be asked to provide information in addition to that provided in their proposals.

3.9.11 Pre-Award Negotiations. The University reserves the right to negotiate prior to award with the highest ranked vendors for purposes of addressing the matters set forth in the following list, which may not be exhaustive.

> ➢ Resolving minor differences and scrivener's errors
> ➢ Clarifying necessary details and responsibilities
> ➢ Emphasizing important issues and points
> ➢ Receiving assurances from vendors
> ➢ Obtaining the lowest and best pricing and/or revenue agreement

3.9.12 Notification of Non-Selection. The University reserves the right not to notify vendors whose RFP responses are not selected for further consideration or notice of award. If the University decides to notify such vendors in writing, it will send the notifications to the address indicated in each such vendor's proposal. Once the award has been finalized, a notice of award may be posted on our **website**.

3.9.13 Vendor's Need to Use Proprietary Rights of the University. All information proprietary to the University and disclosed by the University to any vendor shall be held in confidence by the vendor and shall be used only for purposes of the vendor's performance under any contract resulting from this RFP.

3.9.14 Public Record. After the award and execution of a contract resulting from this RFP, vendors' proposals become public record and are available for review during the University's regular office hours. The University will, in good faith and to the extent allowed by law, honor any vendor information that is clearly designated and conspicuously labeled as proprietary, and the University agrees that the information is proprietary. If the vendor needs to submit proprietary information with the proposal, the vendor **shall ensure that it is enclosed in a separate file from the proposal and that it is clearly designated and conspicuously labeled as such. The file must also contain the reason(s) why the enclosed material is to be considered proprietary.** At <u>no</u> time shall the entire proposal be considered proprietary and be kept confidential. The University shall not be liable in any manner or in any amount for disclosing proprietary information if such information is not clearly so designated and conspicuously so labeled. The University shall likewise not be liable if it did not know or could not have reasonably known that such information was proprietary. **Pricing information cannot be considered proprietary or confidential.**

3.9.15 Certification. By signature on the "Proposal Certification" form included herein, the Vendor certifies that the submission of the proposal did not involve collusion or other anti-competitive practices. The Vendor has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted proposal. In addition, Vendor certifies whether or not any employee of the University has, or has a relative who has, a substantial interest in any Agreement that may result from this RFP. Vendor also certifies their status with regard to debarment, or suspension by any Federal entity.

Failure to provide a valid signature affirming the stipulations required by this clause shall result in the rejection of the submitted proposal and, if applicable, any resulting Agreement. Signing the certification with a false statement shall void the proposal and, if applicable, any resulting Agreement. Any resulting Agreement may be subject to legal remedies provided by law. Vendor agrees to promote and offer to the University only those services and/or materials as stated in and allowed for under resulting Agreement(s).

4.0   AGREEMENT TERMS AND CONDITIONS

The following are the Terms and Conditions that will become part of any Agreement consummated between the University and the Successful Vendor. **In the event of a conflict between any provisions contained in any of the documents governing this transaction, the following shall be the order of precedence: Supplemental Agreement; Request for Proposals; Proposal.**

4.1   **Actions of Successful Vendor.** The University is under no obligation whatsoever to be bound by the actions of any Successful Vendor with respect to third parties. The Successful Vendor is not a division or agent of the University.

4.2   **Advertising.** The Successful Vendor shall not advertise or publish information concerning the Agreement without prior written consent of the University.   The University shall not unreasonably withhold permission.

4.3   **Americans with Disabilities Act and Rehabilitation Act. The Successful Vendor will comply with all applicable provisions of the Americans with Disabilities Act, the Rehabilitation Act, and all applicable federal regulations.**

All electronic and information technology and products and services to be used by University faculty/staff, students, program participants, or other University constituencies must be compliant with the Americans with Disabilities Act as amended and the Rehabilitation Act. Compliance means that a disabled person can acquire the same information, engage in the same interactions, and enjoy the same services as a nondisabled person, in an equally effective and integrated manner, with substantially equivalent ease of use.

4.3.1   **Electronic and Information Technology.** Any acquisition considered electronic and information technology (EIT) as defined by the Access Board at 36 CFR 1194.4 and in the FAR at 2.101 must comply with Section 508 (36 CFR Part 1194) and, for web-based applications, WCAG 2.0, Level AA Guidelines. In addition, the submission of a completed Voluntary Product Accessibility Template (VPAT) is required so the University of Arizona may ascertain conformance. Proposals or bids without a completed VPAT may be disqualified from competition. The UA Guide to the VPAT and the templates themselves are available to assist vendors in this process. See information at http://itaccessibility.arizona.edu/guidelines/purchasing/vpat.

EIT is information technology (IT) and any equipment or interconnected system or subsystem of equipment that is used in the creation, conversion, or duplication of data or information. EIT includes, but is not limited to:

- telecommunication products, such as telephones;
- information kiosks and transaction machines;
- World Wide Web sites;
- software;
- multimedia (including videotapes); and

- office equipment, such as copiers and fax machines.

The University of Arizona reserves the right to perform real-world testing of a product or service to validate vendor claims regarding Section 508 conformance. To facilitate testing, the vendor will, upon request, provide the University with access to the product being considered for purchase for a period of at least 30 calendar days.

4.3.2 Services and Products. An accessible *service or product* is one that can be used by as many people as possible, taking into account their physical, cognitive, emotional, and sensory differences.

Services provided include, but are not limited to:

- education and training;
- cultural and athletic events;
- vehicle rentals
- event space and lodging; and
- parking and transportation.

Products include, but are not limited to:

- office equipment;
- office and classroom furniture; and
- kiosks

4.4   Conflict of Interest. Pursuant to the provisions of Arizona Revised Statute § 38-511, the Arizona Board of Regents may, within three years after its execution, cancel the Agreement without penalty or further obligation if any person significantly involved in negotiating, drafting, securing or obtaining the Agreement for or on behalf of the Arizona Board of Regents becomes an employee in any capacity of any other party or a consultant to any other party with reference to the subject matter of the Agreement while the Agreement or any extension thereof is in effect.

4.5   Drug Free Workplace. The Successful Vendor agrees that in the performance of the Agreement, neither the Successful Vendor nor any employee of the Successful Vendor shall engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity covered by the Agreement. The University reserves the right to request a copy of the Successful Vendor's Drug Free Workplace Policy. The Successful Vendor further agrees to insert a provision similar to this statement in all subcontracts for services required.

4.6   Equal Opportunity. The provisions of Section 202 of Executive Order 11246.41 C.F.R. Sec. 60-1.4.41 C.F.R. Sec. 60-250.4 and 41 C.F.R. Sec. 60-741.4 are incorporated herein by reference and shall be applicable to the Agreement unless the Agreement is exempted under the rules, regulations or orders of the U.S. Secretary of Labor.

4.7   Federal, State, and Local Taxes, Licenses and Permits. Successful Vendor is solely responsible for complying with all laws, ordinances, and regulations on taxes, licenses and permits, as they may apply to any matter under this RFP. The Successful Vendor must demonstrate that they are duly licensed by whatever regulatory body may so require during the performance of the Agreement. Prior to the commencement of Agreement, the Successful Vendor shall be prepared to provide evidence of such licensing as may be requested by the

University. Successful Vendor shall, at no expense to the University, procure and keep in force during the entire period of the Agreement all such permits and licenses.

4.8 Inspection and Audit. Pursuant to the provisions of Arizona Revised Statute § 35-214, all books, accounts, reports, files and other records relating to the Agreement shall be subject at all reasonable times to inspection and audit by the Arizona Board of Regents, The University of Arizona or the Auditor General of the State of Arizona, or their agents for five (5) years after completion or termination of the Agreement.

4.9 Liens. Each Successful Vendor shall keep the University free and clear from all liens asserted by any person or entity for any reason arising out of the furnishing of services or materials by or to the Successful Vendor.

4.10 Modifications. The Agreement can be modified or rescinded only by a writing signed by both parties or their duly authorized agents.

4.11 Non-Discrimination. The parties shall comply with all applicable state and federal statutes and regulations governing equal employment opportunity, non-discrimination, and immigration.

4.12 Sales and Use Tax. The Successful Vendor agrees to comply with and to require all of his subcontractors to comply with all the provisions of applicable law. The Successful Vendor further agrees to indemnify and hold harmless the University from any and all claims and demands made against it by virtue of the failure of the Successful Vendor or any subcontractors to comply with the provisions of any and all said laws. The University is not exempt from state sales and use tax, except for equipment purchased for research or development. Any equipment ordered as tax exempt shall be invoiced separately from taxable systems, even if purchased on the same purchase order as issued by the University.

4.13 Prohibited Harassment. Federal law and the policies of the University prohibit sexual harassment of University employees or students. Sexual harassment includes any unwelcome sexual advance toward a University employee or student, any request for a sexual favor from a University employee or student, or any other verbal or physical conduct of a sexual nature that is so pervasive as to create a hostile or offensive working environment for University employees, or a hostile or offensive academic environment for University students. University vendors, subcontractors and suppliers for this project are required to exercise control over their employees so as to prohibit acts of sexual harassment of University employees and students. The employer of any person who the University, in its reasonable judgment, determines has committed an act of sexual harassment agrees as a term and condition of the Agreement to cause such person to be removed from the project site and from University premises and to take such other action as may be reasonably necessary to cause the sexual harassment to cease.

4.14 Small Business Utilization Program. The University is committed to its Small Business Utilization Program and to the development of Small Business. If subcontracting is necessary, the Successful Vendor will make every effort to use Small Businesses in the performance of the Agreement.

4.15 Smoking and Tobacco Policy. This policy applies to the University of Arizona main campus in Tucson, the Arizona Health Sciences Center, the Phoenix Biomedical Center, the College of Applied Science and Technology (UA South) and all University vehicles. This policy applies to University students, faculty, employees, contractors, volunteers, and visitors on its campuses and in its vehicles. To view the complete policy, click on https://policy.arizona.edu/ethics-and-

conduct/smoking-and-tobacco-policy.The Successful Vendor is expected to respect this tobacco free policy and fully comply with it.

4.16 **Export Control.** Each party shall comply with all applicable export control laws and economic sanctions programs. Applicable export control or economic sanctions programs may include U.S. export control laws such as the Export Administration Regulations and the International Traffic in Arms Regulations, and U.S. economic sanctions programs that are or may be maintained by the U.S. Government. The parties will comply with U.S. export control and U.S. economic sanctions laws with respect to the export (including a deemed export) or re-export of U.S. origin goods, software, services and/or technical data, or the direct product thereof.

4.17 **No Boycott of Goods or Services from Israel**. If the Goods/Services provided under this Agreement include the acquisition of services, supplies, information technology or construction with a value of at least $100,000 and Supplier is engaged in for-profit activity and has 10 or more full-time employees, then, to the extent required by ARS § 35-393.01, Supplier certifies it is not currently engaged in, and during the term of this Agreement will not engage in, a boycott of goods or services from Israel.

4.18 **No Forced Labor of Ethnic Uyghurs.** To the extent required by A.R.S. § 35-394, Successful Vendor certifies it is not currently, and during the term of this Agreement will not use: 1) the forced labor of ethnic Uyghurs in the People's Republic of China; 2) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or 3) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of the ethnic Uyghurs in the People's Republic of China. If the Successful Vendor becomes aware during the term of the awarded agreement that it is not in compliance with this written certification, it shall notify UArizona within five (5) business days of becoming aware of the non-compliance.

4.19 **Safety Standards.** To the extent applicable to the services to be performed under this Agreement, Contractor represents and warrants that all articles and services furnished under this Agreement meet or exceed the safety standards established and promulgated under the Federal Occupational Safety and Health Law (Public Law 91-596) and its regulations, in effect or proposed as the date of this Agreement, which shall include the following guidance provided by OSHA, available at the following link https://www.osha.gov/coronavirus/safework. In addition, Contractor, Contractor employees, and/or subcontractors who will be performing work in University of Arizona locations, indoor or outdoor, must review and abide by the mask requirements listed at: https://covid19.arizona.edu/face-coverings.

4.20 **Arbitration.** The parties agree to arbitrate disputes filed in Arizona Superior Court that are subject to mandatory arbitration pursuant to ARS § 12-133.

4.21 **Travel.** If authorized as part of any resulting contract, all reimbursable travel expenses must be authorized in writing by the University in advance of the planned travel and must be consistent with University Financial Policy 9.12 Independent Contractors, https://policy.fso.arizona.edu/fsm/900/912 items 33-42. Each request for reimbursement shall be itemized and accompanied by copies of original receipts. If applicable, reimbursements for airfare shall be for standard airline coach travel only. If applicable, reimbursement for auto travel and per diem shall be made at the rate permitted for State of Arizona employees. Note that the purchase of alcohol shall not be permitted as a reimbursable expense under this Contract. Vendor will submit all receipts and any required backup documentation to the University within 90 days after the applicable expenses were incurred. The University will not be required to reimburse Vendor for any expenses, invoices, or receipts for expenses received after that time.

4.22   Administrative (Legal) Remedies. The Arizona Board of Regents has promulgated Administrative (Legal) Remedies for alleged breaches or disputes arising from the Agreement. These remedies are exclusive and must be exhausted before the filing of any legal action.

4.23   Assignment-Delegation. No right or interest in the Agreement shall be assigned or delegation of any obligation made by Successful Vendor without the written permission of the University. Any attempted assignment or delegation by Successful Vendor shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

4.24   Assignment of Anti-Trust Overcharge Claims. The parties recognize that in actual economic practice overcharges resulting from anti-trust violations are in fact borne by the ultimate purchaser; therefore, Successful Vendor hereby assigns to the University any and all claims for such overcharges.

4.25   Date for Reckoning Prompt-Payment Discount. For purposes of determining whether a prompt-payment discount, if applicable, may be taken by the University, the starting date of such reckoning period shall be the later of the date of a properly executed invoice or the date of completion of service and/or delivery of product.

4.26   Force Majeure. Neither party shall be held responsible for any losses resulting if the fulfillment of any terms or provisions of the Agreement are delayed or prevented by any cause not within the control of the party whose performance is interfered with, and which by the exercise of reasonable diligence, said party is unable to prevent. Neither the Supplier / Contractor nor the University shall be liable for failure to perform if such failure is caused by or due to acts on regulations of public authorities, labor difficulties, civil tumult, strike, epidemic, pandemic, or any cause beyond the control of Supplier / Contractor or the University. Neither party shall be under any further obligation to the other.

4.27   Indemnification / Hold Harmless. The Successful Vendor shall indemnify, defend, and hold harmless to the fullest extent allowed by law the State of Arizona, the Arizona Board of Regents and the University, its officers, agents, and employees ("Indemnitees") from any and all claims, demands, suits, actions, proceedings, loss, cost, and damages of every kind and description, including attorneys' fees and/or litigation expenses, which may be brought or made against or incurred on account of breach, or loss of or damage to any property, or for injuries to or death of any person, or financial loss incurred by Indemnitees, caused by, arising out of, or contributed to, in whole or in part, by reasons of any act, omission, professional error, fault, mistake, or negligence of Successful Vendor, its employees, agents, representatives, or subcontractors, their employees, agents, or representatives in connection with or incident to the performance of the Agreement, or arising out of Workers Compensation claims, Unemployment Compensation claims, or Unemployment Disability Compensation claims of employees of Successful Vendor and/or its subcontractors of claims under similar such laws and obligations. Successful Vendor's obligation under this provision shall not extend to any liability caused by the sole negligence of the State of Arizona, Arizona Board of Regents, University or its officers, agents, and employees. Such indemnification shall specifically include infringement claims made against any and all intellectual property supplied by Successful Vendor and third party infringement under the Agreement.

4.28   Indemnification by the University. Arizona Revised Statute § 35-154 prohibits persons from incurring obligations against the state for which funds have not been appropriated or allocated. Arizona Attorney General's Opinion 67-36-L interprets this statute to prohibit the state and its

agencies from agreeing to hold harmless or indemnify third parties. The University shall be liable for claims, damages or suits arising from the acts, omissions or negligence of its officers, agents and employees.

4.29   Insurance Requirements. Without limiting any liabilities or any other obligations of Successful Vendor, the Successful Vendor shall provide and maintain the minimum insurance coverage listed below unless otherwise agreed to in writing. Coverage shall be provided with forms and insurers acceptable to the University until all obligations under the Agreement are satisfied.

- Commercial General Liability (CGL) insurance with minimum limits of ONE MILLION DOLLARS ($1,000,000) each occurrence and TWO MILLION DOLLARS ($2,000,000) general aggregate.
- Commercial Automobile Liability insurance with a minimum combined single limit of ONE MILLION DOLLARS ($1,000,000) each occurrence.

The insurance policies required in the two statements above shall be endorsed to name the State of Arizona, Arizona Board of Regents on behalf of the University of Arizona as additional insured and shall stipulate that the insurance afforded the Successful Vendor shall be primary insurance and that any insurance carried by the State of Arizona, the Arizona Board of Regents and the University of Arizona, their agents, officials or employees shall be excess and not contributory insurance to that provided by Successful Vendor.

- If applicable, Worker's Compensation insurance in accordance with applicable Arizona Statutes, for any employees engaged in the performance of Agreement; and
- Employer's Liability insurance with a minimum limit of FIVE HUNDRED THOUSAND DOLLARS ($500,000).

A certificate of insurance acceptable to the University shall be furnished to the University prior to the commencement of Agreement as evidence that policies providing the required coverage, conditions and limits are in full force and effect.

4.30   Additional Insurance Requirements (Consultants, Lawyers, Architects and Engineers Agreements). Not Applicable.

4.31   Additional Insurance Requirements (Medical Services Agreement). Not Applicable.

4.32   Additional Insurance Requirements (Handling Hazardous Wastes). Not Applicable.

4.33   Intellectual Property. It is understood and agreed that ownership of intellectual property developed as a result of fulfilling the requirements of this Request for Proposals belongs solely and exclusively to the Arizona Board of Regents on behalf of the University of Arizona. Documents/drawings used in this proposal belong to the Arizona Board of Regents on behalf of the University of Arizona and/or are being used with permission. Intellectual property as used herein, means all forms of legally protectable intellectual property, including copyrights, trademarks, inventions, patent applications, patents and mask works, drawings and/or blueprints. It is also understood and agreed that anything created as a result of an award of this proposal is considered a work for hire under the U.S. copyright laws and as such, the Arizona Board of Regents on behalf of the University of Arizona will own the copyright.

4.34   Labor Disputes. Successful Vendor shall give prompt notice to the University of any actual or potential labor dispute which delays or may delay performance of the Agreement.

4.35   **Laws and Regulations.** Successful Vendors are solely responsible for keeping themselves fully informed of and faithfully observing all laws, ordinances, and regulations affecting the rights of their employees, and shall protect and indemnify the University, its officers and agents against any claims of liability arising from or based on any violation thereof.

4.36   **No Replacement of Defective Tender.** Every tender of goods must fully comply with all provisions of the Agreement as to time of delivery, quantity, quality, and the like. If a tender is made which does not fully conform, this shall constitute a breach and Successful Vendor shall not have the right to substitute a conforming tender.

4.37   **No Waiver of Right by the University.** No waiver by University of any breach of the provisions of the Agreement by the Successful Vendor shall in any way be construed to be a waiver of any future breach or bar the University's right to insist on strict performance of the provisions of the Agreement

4.38   **Parking.** The Successful Vendor shall obtain all parking permits and/or decals that may be required while performing project work on University premises. The Successful Vendor should contact Parking and Transportation Services located at 1117 E. Sixth St., Tucson AZ 85721-0181.

4.39   **Performance and / or Payment Bonds.** The Successful Vendor shall provide and pay for performance and/or payment bonds. Such bonds shall cover the faithful performance (100%) of the Agreement and the payment of all obligations (100%) arising thereunder, in such form as the University may prescribe and with approved sureties. The Successful Vendor shall deliver the required bonds to the University not later than the date of executing the Agreement. The Successful Vendor shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of his power of attorney indicating the monetary limit of such power. Surety shall be a company licensed to do business in the State of Arizona and shall be acceptable to the University. The bond amount shall be increased to include any change order added to the Agreement to one hundred percent (100%) of the total of each change order.

4.40   **Payment Terms.** Payments by the University shall be subject to the provision of Title 35 of Arizona Revised Statutes relating to time and manner of submission of claims. The University's obligation is payable only and solely from funds appropriated for the purpose of the Agreement. Unless otherwise stated herein, the payment terms for the Agreement are Net 30 days

4.41   **Price Adjustment for Multi-Year Contracts.** Price changes will normally only be considered at the end of one Agreement period and the beginning of another. Price change requests shall be in writing, submitted at least sixty (60) days prior to the end of the current Agreement period, and shall be supported by written evidence of increased costs to the Successful Vendor. The University will not approve unsupported price increases that will merely increase the gross profitability of the Successful Vendor at the expense of the University. Price change requests shall be a factor in the Agreement extension review process. The University shall, in its sole opinion, determine whether the requested price increase or an alternate option is in the best interest of the University.

4.42   **Prior Course of Dealings.** No trade usage, prior course of dealing, or course of performance under other agreements shall be a part of any agreement resulting from this RFP; nor shall such trade usage, prior course of dealing, or course of performance be used in the interpretation or construction of such resulting agreement.

4.43   Referencing of Orders. For each order issued against an agreement resulting hereunder, the University intends in good faith to reference this RFP for pricing, terms and conditions, delivery location, and other particulars.   However, in the event the University fails to do so, the University's right to such terms, conditions, and particulars shall not be affected, and no liability of any kind or amount shall accrue to the University.

4.44   Remedies and Applicable Law. The Agreement shall be governed by and construed in accordance with the laws of the State of Arizona. University and Successful Vendor shall have all remedies afforded each by said law. The venue in any action or litigation commenced to enforce the Agreement shall be instituted in the appropriate courts in Arizona.

4.45   Right of Assurance. Whenever one party to the Agreement in good faith has reason to question the other party's intent to perform, he may demand that the other party give a written assurance of their intent to perform.   In the event that a demand is made and no written assurance is given within ten calendar (10) days, the demanding party may treat this failure as an anticipatory repudiation of the Agreement.

4.46   Right of Inspection. University shall have the right to inspect the goods at delivery before accepting them.

4.47   Right of Offset. The University shall be entitled to offset against any sums due the Successful Vendor, any expenses or costs incurred by the University, or damages assessed by the University concerning the Successful Vendor's non-conforming performance or failure to perform the Agreement, or any other debt owing the University, including expenses, costs and damages described in the termination provisions contained herein.

4.48   Termination

4.48.1   Convenience. The University reserves the right to terminate the Agreement in whole or in part at any time when in the best interests of the University without penalty or recourse. Upon receipt of the written notice, the Successful Vendor shall immediately stop all work as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the University.   In the event of termination under this provision, all documents, data and reports prepared by the Successful Vendor under the Agreement shall become the property of and delivered to the University. The Successful Vendor shall be entitled to receive just and equitable compensation for work in progress, work completed and materials accepted before the effective date of termination. Such compensation shall be the Successful Vendor's sole remedy against the University in the event of termination under this provision.

4.48.2   Cause. The resulting agreement may be terminated by either party for cause in the event of: (a) breach by the other party of a material obligation under the Agreement which is not remedied within thirty (30) days after written notice.

4.48.3   Suspension or Debarment. The University may by written notice to the Successful Vendor immediately terminate the Agreement if the University determines that the Successful Vendor has been debarred, suspended or otherwise lawfully prohibited from participating in any public procurement activity, including but not limited to, being disapproved as a subcontractor Vendor of any public procurement unit or other governmental body.

4.21.1   Default. The University reserves the right to terminate the Agreement in whole or in part due to the failure of the Successful Vendor to comply with any term or condition

of the Agreement, to acquire and maintain all required insurance policies, bonds, licenses and permits, or to make satisfactory progress in performing the Agreement. The University shall provide written notice of the termination and the reasons for it to the Successful Vendor. Upon termination under this provision, all goods, materials, documents, data and reports prepared by the Successful Vendor under the Agreement shall become the property of and be delivered to the University on demand. The University may, upon termination of the Agreement, procure, on terms and in the manner that it deems appropriate, materials or services to replace those under the Agreement. The Successful Vendor shall be liable to the University for any Excess Costs incurred by the University in re-procuring the materials or services.

4.21.2 **Gratuities.** The University may, by written notice to the Successful Vendor, cancel the Agreement if it is discovered by the University that gratuities, in the form of entertainment, gifts or other, were offered or given by the Successful Vendor, or any agent or representative of the Successful Vendor, to any officer or employee of the University with a view toward securing an Agreement or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such Agreement. In the event the Agreement is canceled by the University pursuant to this provision, University shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by Successful Vendor in providing such gratuities.

4.21.3 **Insolvency.** The University shall have the right to terminate the Agreement at any time in the event Successful Vendor files a petition in bankruptcy; or is adjudicated bankrupt; or if a petition in bankruptcy is filed against Successful Vendor and not discharged within thirty (30) days; or if Successful Vendor becomes insolvent or makes an assignment for the benefit of its creditors or an arrangement pursuant to any bankruptcy law; or if a receiver is appointed for Successful Vendor or its business.

4.21.4 **Lack of Funding.** The Agreement may be canceled without further obligation on the part of the Arizona Board of Regents and the University of Arizona in the event that sufficient appropriated funding is unavailable to assure full performance of the terms. The Successful Vendor shall be notified in writing of such non-appropriation as soon as reasonably possible. No penalty shall accrue to the Board or the University in the event this cancellation provision is exercised. This cancellation provision shall not be construed so as to permit the University to terminate the Agreement in order to acquire similar equipment, material, supplies or services from another party.

4.21.5 **Stop Work Order.** The University may at any time, by written order to the Successful Vendor, require the Successful Vendor to stop all or any part of the work called for by the Agreement for a period of ninety (90) days after the order is delivered to the Successful Vendor, and for any further period to which the parties may agree. The order shall be specifically identified as a Stop Work Order issued under this provision. Upon receipt of the order, the Successful Vendor shall immediately comply with its terms and take all reasonable steps to minimize the incidence of costs allocable to the work covered by the order during the period of work stoppage. If a Stop Work Order issued under this provision is canceled or the period of the order or any extension expires, the Successful Vendor shall resume work. The University shall make an equitable adjustment in the delivery schedule or Agreement price, or both, and the Agreement shall be amended in writing accordingly.

4.49 Continuation of Performance through Termination. The Successful Vendor shall continue to perform, in accordance with the requirements of Agreement, up to the date of termination, as directed in the termination notice.

4.50 Confidentiality. The parties shall comply with 20 USC Section 1232(g), the Buckley Amendment to the Family Educational Right and Privacy Act of 1974. Therefore, Vendor shall not be entitled to receive Employee or Student information directly from University, other than public information available in University directories which is not protected by federal or state privacy or confidentiality statutes or regulations. Vendor may solicit Employee and Student information directly from Employees and Students subject to prior disclosures by Vendor of all intended uses of such information. Regardless of the Employee or Student personal information, even if such information is publicly available via directories, Vendor shall under no circumstances sell, duplicate, market, or give to any person or persons, entities or other companies a list or other personal information of any or all Employees or Students. All identities and personal information Employees and Students shall remain confidential. And disclosure by Vendor occurring without the express prior written consent of the Employee or Student shall result in the immediate termination of this agreement.

4.51 Data Use, Ownership, and Privacy. The terms of this section apply if Supplier receives, has access to, stores, or analyzes any UA Data (as defined below). As between the parties, UA will own, or retain all of its rights in, all data and information that UA provides to Supplier, as well as all data and information managed by Supplier on behalf of UA, including all output, reports, analyses, and other materials relating to, derived from, or generated pursuant to the Agreement, even if generated by Supplier, as well as all data obtained or extracted through UA's or Supplier's use of such data or information (collectively, UA Data). UA Data also includes all data and information provided directly to Supplier by UA students and employees, and includes personal data, metadata, and user content.

UA Data will be UA's Intellectual Property and Supplier will treat it as UA Confidential Information (as defined below). Supplier will not use, access, disclose, or license, or provide to third parties, any UA Data, except: (i) to fulfill Supplier's obligations to UA hereunder; or (ii) as authorized in writing by UA. Without limitation, Supplier will not use any UA Data, whether or not aggregated or de-identified, for product development, marketing, profiling, benchmarking, or product demonstrations, without, in each case, UA's prior written consent. Supplier will not, directly or indirectly: (x) attempt to re-identify or de- aggregate de-identified or aggregated information; or (y) transfer de-identified and aggregated information to any third party unless that third party agrees not to attempt re-identification or de-aggregation. For UA Data to be considered de-identified, all direct and indirect personal identifiers must be removed, including names, ID numbers, dates of birth, demographic information, location information, and school information. Upon request by UA, Supplier will deliver, destroy, and/or make available to UA, any or all UA Data.

Notwithstanding the foregoing, if the Agreement allows Supplier to provide aggregated and de-identified data to third parties, then Supplier may provide such data solely to the extent allowed in the Agreement, and, unless otherwise stated herein, only if such data is aggregated with similar data of others (i.e. is not identified as UA, ABOR, or Arizona-specific).

4.52 Non-Discrimination, Affirmative Action. Contractor and subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in

employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

4.53 **Clean Air and Federal Water Pollution Control Act.** The successful vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C.1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

4.54 **COVID-19 Safety Protocols.** The successful vendor must comply with FAR 52.223-99.

4.55 **PCI DSS AND PABP COMPLIANCE.** Contractor acknowledges, warrants and will maintain all applicable PCI DSS requirements to the extent the service provider handles, has access to, or otherwise stores, processes, or transmits the customer's cardholder data and/or sensitive authentication data and/or can affect security of those entities that store, process, or transmit cardholder data (e.g. Managed Services).

Furthermore, Contractor must certify at time of contract/agreement to be in compliance and continue to meet all applicable requirements by providing validation either by appearing on the VISA Global Registry of Service Providers (CISP), Payment Card Industry Security Standards Council Validated Payment Applications list (if applicable), or provide a completed and signed Attestation of Compliance (AOC) signed by a PCI approved Quality Security Assessor (QSA). Any change in Contractor's certification requires prompt (within thirty (30) days) written notification to the University of Arizona.

Furthermore, Contractor agrees to provide to the University of Arizona upon request, any supporting compliance documentation such as but not limited to Approved Scan Vendor (ASV) Attestation of Compliance (AOC), external scan results, penetration testing results, and/or a completed Service Provider Self-Assessment Questionnaire (SAQ) D (if not completing a third-party assessment).

Contractor agrees to indemnify the University of Arizona for any breach of its cardholder data attributed to the application, system, or Contractor controlled interface to CHD or service provided by the Contractor. Contractor agrees to notify the University of Arizona authorized representative within 24 hours in the event of unauthorized release of cardholder data

Contractor must provide written documentation, which outlines the specific PCI DSS compliance responsibilities of both the Contractor and the University of Arizona.

4.56 **Assignment.** Contractor agrees that all copyrightable material, notes, records, drawings, designs, inventions, improvements, developments, discoveries, trade secrets and other work product that is conceived, made or discovered by Contractor, solely or in collaboration with others, during the performance of this Agreement, including all copyrights, patents, or other intellectual property rights therein (collectively, "**Work Product**"), are the sole property of the University. To the extent allowable under law, all Work Product will be deemed "Work For Hire" under the Copyright Act. To the extent any Work Product is not "Work For Hire," Contractor will assign (or cause to be assigned) and does hereby assign fully to University all right, title and interest in and to all Work Product. Contractor will assist University or its designee, at University's expense, in every proper way to establish, secure, perfect and maintain University's ownership rights in the Work Product, including the disclosure to the University of all pertinent information and data with respect thereto, and the execution of all applications, assignments and all other instruments reasonably requested by University.

4.57   Pre-Existing Materials. If, in the course of performing the Services, Contractor incorporates into any Work Product developed hereunder any invention, improvement, development, concept, discovery or other proprietary information owned by Contractor or in which Contractor has an interest: (i) Contractor shall inform University, in writing before incorporating such invention, improvement, development, concept, discovery or other proprietary information into any Work Product; and (ii) Contractor hereby grants University, under all of Contractor rights therein, a nonexclusive, royalty-free, perpetual, irrevocable, worldwide license to use, reproduce, distribute, perform, display, prepare derivative works of, make, have made, sell and export such item as part of or in connection with such Work Product. Developer shall not incorporate any invention, improvement, development, concept, discovery or other proprietary information owned by any third party into any Work Product without University's prior written permission.

4.58   Information Security

   4.58.1   Definitions

   4.58.1.1   Authorized Users. Authorized users means and is limited to (1) Authorized Employees; and (2) Vendor's subcontractors, agents, and auditors who have a need-to-know or otherwise access data to enable the Vendor to comply with the Agreement, and who are bound in writing by confidentiality obligations sufficient to protect University Data in accordance with the terms hereof.

   4.58.1.2   Confidential Information. Confidential information means any nonpublic information that is confidential or proprietary to a party and is disclosed or becomes known pursuant to this agreement.   Except to the extent information is required to be kept private or confidential pursuant to other law, regulation, or policy, "Confidential Information" does not include information that is or becomes generally available or known to the public through no act of omission of the receiving party; was received lawfully from a third-party through no breach of any obligations of confidentiality owed to the disclosing party; or created by a party independently of its access to or use of other party's information.

   4.58.1.3   University Data. University data means any and all data, information, text, graphics, works and other materials that are collected, loaded, stored, accessible, transferred through and/or accessed by the University in the course of using Vendor's services, including, but not limited to: (1) updates, modifications and/or deletions; (2) all of the results from the use of services; and (3) all information and materials that you develop or acquire prior to, or independently of, the Agreement. University Data is Confidential Information.

   4.58.1.4   Data Compromise. Data compromise means any actual or reasonably suspected unauthorized access to, or acquisition of, data that compromises the security, confidentiality or integrity of the data or the ability of the University to access the data.

   4.58.1.5   Information Security Incident. Information security incident means any actual or reasonably suspected incident, or imminent threat of unauthorized access, use, disclosure, breach, modification, or destruction of University

Data; interference with information technology operations; or significant violation of the University's information security policy or the information security provisions of this Agreement.

4.58.2   Concepts

4.58.2.1   University Data Protection. All facilities used by or on behalf of the Vendor to store and process University Data will implement and maintain administrative, physical, technical, and procedural safeguards in accordance with industry best practices at a level sufficient to secure such data from unauthorized access, destruction, use, modification or disclosure. Such measures will be no less protective than those used to secure the Vendor's own data of a similar type, and in no event, less than reasonable in view of the type and nature of the data involved. The Vendor must maintain the administrative, physical, technical and procedural infrastructure associated with the provision of services to the University in a manner that is, at all times during the term of this Agreement, at a level equal to or more stringent than those specified by the parties to this Agreement.

4.58.2.2   Access Control. The Vendor will control access to the University's Data, limiting access to Authorized Users who have a legitimate need to know based on individual work assignment for the Vendor. The Vendor will trace approved access to ensure proper usage and accountability, and the Vendor will make such information available to the University for review, upon the University's request and not later than five (5) business days after the request is made in writing.

4.58.2.3   Patch Management. Vendor will carry out updates and patch management for all systems and devices in a timely manner, applying security patches within five (5) business days or less based on reported criticality. Updates and patch management must be deployed using an auditable process that can be reviewed by the University upon the University's request and not later than five (5) business days after the request is made in writing. An initial report of patch status must be provided to the University prior to the effective date of this Agreement.

4.58.2.4   Scanning and Penetration Testing. Prior to the Effective Date of this Agreement, and at regular intervals of no less than annually, and whenever a change is made which may impact the confidentiality, integrity, or availability of University Data, and in accordance with industry standards and best practices, Vendor will, at its expense, perform scans for unauthorized applications, services, code and system vulnerabilities on the networks and systems used to perform services related to this Agreement. An initial report must be provided to the University prior to the Effective Date of this Agreement. Vendor will provide the University the reports or other documentation resulting from the audits, certifications, scans and tests within five (5) business days of Vendor's generation or receipt of such results. The Vendor will, if such results so require, within thirty (30) calendar days of receipt of such results, promptly modify its security measures in order to meet its obligations under this Agreement and provide the University with written evidence of remediation. The following audits, certifications, scans, and tests are required:

- A vulnerability scan performed by a third-party of the Vendor's systems and facilities that are used in any way to deliver services under this Agreement;
- A formal penetration test performed by qualified personnel of the Vendor's systems and facilities in use in any way to deliver services under this Agreement; and
- The University may require the Vendor to perform additional audits and tests, the results of which will be provided to University within seven (7) business days of Vendor's receipt of such results.

4.58.2.5 Encryption. All systems and devices that store, process and/or transmit Confidential Information must use an industry standard encryption protocol for data in transit and at rest.

4.58.2.6 Security Development. Vendor will use secure development and coding standards; including secure change management procedures in accordance with industry standards. The Vendor's web applications must meet OWASP Application Security Verification Standards (ASVS). The Vendor will perform penetration testing and/or scanning prior to releasing new software versions. Vendor will provide internal standards and procedures to the University for review upon the University's request.

4.58.2.7 Deterioration and Degradation. Vendor will protect University Data against deterioration or degradation of quality and authenticity, including, but not limited to, annual data integrity audits performed by an independent, external organization.

4.58.3 Notification. Any notices or communications required or permitted to be given to the University under this Agreement must be (i) given in writing and (ii) transmitted by electronic mail transmission (including PDF), to the University Information Security Office at security@arizona.edu. Any such notice or communication must be deemed to have been given on the day such notice or communication is sent electronically, provided that the sender has received a read receipt or other replied acknowledgement of such electronic transmission.

4.58.3.1 Notification and Data Compromise. Unauthorized access or disclosure of nonpublic data is considered to be a breach. The Vendor will provide notification, as soon as it is aware of the Data Compromise or breach, to the University Information Security Office at security@arizona.edu. When the Vendor is liable for the loss, the Vendor must bear all costs associated with the investigation, response and recovery from the breach, including, but not limited to, credit monitoring services with a term of at least three (3) years, mailing costs, website and toll-free telephone call center services. Any limitation on liability in this Agreement or elsewhere is void to the extent that it relieves a Vendor from its own negligence or to the extent that it creates an obligation on the University to hold the Vendor harmless.

4.58.3.2 Incident Reporting. Vendor will report all other Information Security Incidents to the University within 24 hours of discovery.

4.58.3.3 Third-Party Requests. The Vendor will notify the University immediately if the Vendor receives any third-party request for University Data, including but not limited to a subpoena, a court order, a public records request, a request

directly from a data subject, or other type of inquiry or demand; or the location or method of transmission of University Data is changed. All notifications to the University required in this Information Security paragraph will be sent to the University Information Security Office at security@arizona.edu, in addition to any other notice addresses in this Agreement. In all such instances, to the extent legally feasible, the Vendor will not provide any University Data to such third-party and will instead direct the requestor to the University.

4.58.4 Workforce Security and Location. The Vendor will comply with workforce location and security clauses as outlined in this Agreement. Additionally, the Vendor will ensure their workforce is properly trained on information security and privacy practices of the University and on any information security or privacy regulations, as required by applicable rules. The Vendor must promote and maintain an awareness of the importance of securing the University Data to Employees and agents

4.58.4.1 Offshore. The University may select or restrict where University Data will be stored and where University Data can be processed, and the Vendor will store and/or process it there in accordance with the service terms. If a data location selection is not covered by the service terms (or a Data Location Selection is not made by the University with respect to any University Data), the Vendor will not be restricted in the selection of University storage or processing facilities. Any services that are described in this Agreement that directly serve the University and may involve access to sensitive University Data or development or modification of software for the University will be performed within the borders of the United States. Unless stated otherwise in this Agreement, this requirement does not apply to indirect or "overhead" services, redundant back-up services or services that are incidental to the performance of this Agreement. This provision applies to work performed by subcontractors at all tiers and to all University Data.

4.58.4.2 Background Checks. The Vendor must conduct background checks and not utilize any individual to fulfill the obligations of this Agreement, including subcontractors, if such individual has been convicted of any crime involving dishonesty or false statement including, but not limited to fraud and theft, or otherwise convicted of any offense for which incarceration for a minimum of one (1) year is an authorized penalty. Any such individual may not be an "Authorized User" under this Agreement.

4.58.5 Audit. The Vendor will, at its expense, conduct or have conducted such audits and certifications as defined under this section at least annually, and immediately after any actual or reasonably suspected breach. The Vendor will provide the University the results of any such audits as defined under this section, along with the Vendor's plan for addressing or resolving any shortcomings identified by such audits, within seven (7) business days of the Vendor's receipt of such results.

4.58.5.1 Security Reviews. The Vendor will complete one of the following audits at least annually and immediately after any actual or reasonably suspected Data Compromise: SOC 2 Type I or II, SOC for Cybersecurity, or an accepted Higher Education Cloud Vendor Assessment Tool. Evidence must be provided to the University prior to the Effective Date of this Agreement and at least annually thereafter.

4.58.5.2 Reports. The University reserves the right to annual, at a minimum, review of: Vendor access reports related to access to University Data; Vendor patch management process, schedules, and logs; findings of vulnerability scans and/or penetration tests of Vendor systems; and Vendor development standards and processes.

4.58.5.3 Additional Audits at University Request. The University may require the Vendor to perform additional audits and tests, the results of which will be provided to the University within five (5) business days of the Vendor's receipt of such results.

4.58.6 Destruction and Return of University Data. Except as permitted in other areas of the Agreement, the Vendor will promptly return the University's Confidential Information upon termination of this Agreement, the final performances of services under this Agreement, or upon the request of the University, whichever comes first. In the event the Vendor has non-unique copies of the University's Confidential Information that are also held by or returned to the University, the Vendor may, in lieu of returning such non-unique copies, destroy such Confidential Information in all forms and types of media and provide written confirmation or certification of such destruction.

5.0 SCOPE OF WORK, SPECIFICATIONS, TECHNICAL REQUIREMENTS

5.1 Term of Agreement. The term of service will be from the effective date of an executed agreement until five (5) years after successful acceptance testing.

5.2 Specifications: Brand Name or Acceptable Alternate.
Where in these specifications reference is made to materials, trade names, catalog numbers or articles of certain manufacture, it is done for the sole purpose of establishing a basis of a comparable standard of quality, performance, characteristics desired and is not intended to limit or restrict competition. It shall be understood that such method of specification description is not intended to exclude other processes, similar designs, or kinds of materials, but is intended solely as a means of establishing a standard of comparison to be utilized for solicitation evaluation purposes. Other material or product may be used, if in the sole opinion of the University, they are equal in durability, quality and of a design in harmony with the intent of these specifications. Such other material or product which is substantially equivalent to those specific brand(s) specified shall qualify for solicitation evaluation and award consideration by the University. The University reserves the right to reject any substitute material or product which, in its opinion, does not meet the standard of quality established by reference in these specifications and is not considered an acceptable alternate for the intended use and purpose. The burden of proof as to meeting the requirements of these specifications shall be the responsibility of the submitting vendor. Such proposer(s) who is offering any material or product other than the item(s) specified herein must submit with their solicitation response catalogs cuts and detailed specifications which will completely describe the item(s) on which they are offering for an acceptable alternate determination by the University. Where the proposer proposes to substitute a material or product which is not known to the University, he/she shall be prepared to submit samples on request for the University's inspection and evaluation. The cost of transportation, both ways, of such samples shall be borne by the submitting proposer.

5.3 Furnish and Install.
The items specified in this solicitation will be provided on a furnished and installed basis. The Successful Vendor shall have the complete responsibility for the items or system until it is in place and working. Any special installation preparation and requirements must be submitted

to the University. All transportation and coordination arrangements will be the responsibility of the Successful Vendor. Delivery of equipment will be coordinated so that items or system will be delivered directly to the installation site. This effort will minimize risk of damage and avoid double handling.

5.4   Detailed Pricing.
See each component defined below for detailed pricing information.

5.5   Method of Payment & Discount for Early Payment.

Do you offer an early payment discount?   Yes _____   No _____

If yes, what is your offer?   _____ % if paid within _____ days after the University receives a proper, accurate and uncontested Invoice for Payment.

If payment via credit card is accepted and an early payment discount is offered, would the University receive the discount if paying by credit card? Yes _____   No _____

5.6   References
Respondent to provide (three) 3 customer references, from comparable institutions for similar products or services specified in this RFP, including the names and telephone numbers of the contact persons. Additional information can be found in each section: Compute see **5.10.11**; GPU see **5.11.10**; All reference systems and contacts must not require security clearance in order to obtain information about the systems configuration, reliability and performance or the vendors support capabilities and performance.

5.7   Background
The University of Arizona has maintained a central High Performance Computing (HPC) environment for shared use by all UA researchers for over 25 years. The central HPC systems are a vital research resource and are used by researchers from a wide variety of academic disciplines, across many of the UA Colleges. In recent years the use of computing has extended from its historical base in Science and Engineering to almost all areas of research and scholarly activities.

The current HPC systems provide specialized, shared use, computing infrastructure for research that requires parallel processing, very large memory, and very large numbers of jobs (high throughput). They also offer a base for research groups to "buy-in" and add compute and storage capacity to the HPC resources, while taking advantage of centrally provided data center space, power, cooling, operations and administration. In addition the HPC resources are valuable for recruiting and retaining outstanding faculty, staff, and students.

The purpose of this RFP is to procure the next generation of UA HPC system (HPC 2024) with the goal to match the capacity and capabilities provided by the current generation of UA HPC systems (HPC2020). HPC 2020 systems will continue to be operated and are described at https://hpcdocs.hpc.arizona.edu/resources/compute_resources

HPC 2024 will support the larger University of Arizona's strategic goals by: providing an HPC environment for engaging students in the use of state-of-the-art High Performance Computing and providing them with the skills required to lead in the 4th industrial revolution; building an IT environment with increased capacity, capability, flexibility, and availability to

tackling grand challenges; increase the number of campus researchers using the centrally provided systems; and demonstrate to grant awarding organizations the level of commitment of the UA to research and research computing.

5.8   Scope

The University of Arizona (UA) is inviting proposals that will together comprise the next-generation of high-performance computing for our faculty, staff and students. This section provides general scoping information for proposals. Details of specific required, preferred and optional components of proposal sections are listed in those sections.

In the interest of reducing ambiguity, the key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in sections 5.8, 5.9, 5.10 and 5.11 are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here. See https://www.rfc-editor.org/bcp/bcp14.txt for further details.

5.8.1   General

5.8.1.1   Respondent MUST propose at least one of the following
   5.8.1.1.1   CPU Compute Nodes - defined in section **5.10**
   5.8.1.1.2   GPU Compute Nodes - defined in section **5.11**

5.8.1.2   Respondents MUST provide ongoing technical support and maintenance for the proposed hardware and software as specified in each section.

5.8.1.3   Respondents MUST provide quotes for the purchase of the proposed hardware and software in each section

   5.8.1.3.1   All systems, subsystems and options SHOULD be priced separately. See each section for additional pricing information requirements
   5.8.1.3.2   All maintenance costs MUST be itemized separately
   5.8.1.3.3   Shipping costs MUST be included in proposal FOB to zip code 85721.

5.8.1.4   Respondents MUST provide quotes for 5-year maintenance support contract(s) for proposed hardware and software.

5.8.1.5   All subsystems which are included in proposals MUST be installed and operational before the start of acceptance testing.

5.8.2   Options Indicate any options proposed and include all pricing information.

5.8.2.1   Respondents MAY provide optional libraries, utilities, applications, etc.
5.8.2.2   Respondents MAY provide options for any additional hardware or software components that the respondent feels will extend the capacity and/or capabilities of the system to provide enhanced resources and support for UA research computing.

5.9   Environmental Considerations

The UA research data center is 1,200 ft2 of raised floor space designed for high density racks. All respondents MUST return a completed Environmental Considerations response sheet, Referenced here as Appendix C for Compute Nodes and Appendix D for GPU Nodes.

5.9.1 Floor Loading
The RDC raised floor is 18" high supporting 1250 lbs/ft2 loading on concrete filled tiles. Respondents MUST specify the weight for a single fully loaded compute rack.

5.9.2 Power
The RDC is designed for high density racks with overhead power distribution for 208V single or 3-phase power connections. Backup power is provided by both UPS and generator.
- **5.9.2.1** Respondents MUST specify the maximum power usage for a single compute rack. Maximum power usage per rack MUST NOT exceed 68kVA.
- **5.9.2.2** MUST specify the average power usage per rack (kVA).
- **5.9.2.3** MUST specify the power plug types for rack PDUs. For example, our facility currently provides 460R9W/460C9W for 3-phase 208V 60A and L6-30R for single-phase 208V 30A.
- **5.9.2.4** MUST specify the number of power plugs per rack.

5.9.3 Energy Efficiency
Data center power capacity is limited, as such energy efficiency will be a factor considered when reviewing these proposals.

- **5.9.3.1** MAY highlight specific energy efficiency features of proposed systems.

5.9.4 Rack Design and Footprint
Data center space is limited, as such total rack footprint and efficient use of physical rack space will be a factor considered when reviewing these proposals. Responses MAY use racks conforming to either 19" EIA-310-D standard or 21" OpenCompute standard.

- **5.9.4.1** 19" EIA-compatible racks MUST provide no less than 42 vertical RU
  21" OCP-compatible racks MUST provide no less than 40 vertical OU
- **5.9.4.2** All racks MUST meet the following physical requirements:
  - No more than 800mm in width
  - No more than 1200mm in depth
  - No more than 2300mm in height
- **5.9.4.3** MUST specify the total number of racks in proposed solution
- **5.9.4.4** MUST specify the footprint required for all the proposed compute racks. Do not include space required to access the racks.
- **5.9.4.5** MUST specify the brand and model of rack used in the solution

5.9.5 Density
Data center space is limited, as such density of compute will be a factor considered when reviewing these proposals.

- **5.9.5.1** Each node specification section includes a density requirement

5.9.6 Cooling

Facility-wide forced air cooling is provided by dual 35-ton air handlers. Chilled water is provided as a utility service by the University of Arizona as part of a campus-wide chilled water loop at an average of 47ºF. Existing compute systems utilize rear door heat exchangers connected to this chilled water loop via underfloor chilled water distribution and condensate manifolds.

5.9.6.1 Liquid Cooling
Proposed compute solutions MUST include waste heat mitigation in the form of rear door heat exchangers and/or per-rack direct liquid cooling solutions compatible with RDC chilled water facilities. Proposed solutions MUST NOT utilize immersion cooling. Specify on Response Spreadsheet in Appendix C for Compute Nodes and Appendix D for GPU Nodes, Environmental tab the nature of the cooling solution. Note that the proposed solution is not required to be temperature neutral at maximum output.

5.9.6.2 Cooling Distribution Unit (CDU)
There is currently no CDU in the facility, provided chilled water is fed directly from the campus loop. If a CDU is required (for temperature control, pressure management, heat-exchange with a closed loop, etc.) that CDU MUST be included in the proposal at the rack level. Row and/or facility level CDUs MUST NOT be required in proposals. Specify in the Response Spreadsheet in Appendix C for Compute Nodes and Appendix D for GPU Nodes, Environmental tab if a CDU is included in the proposal.

5.9.6.3 Chilled Water Plumbing Requirements
Respondent MUST supply (2 per cabinet) factory assembled, pressure tested hoses (minimum 10' each) with ¾" female quick release couplings (Parker P/N BH6-61 or equivalent) conforming to ISO 7241-1 Series B for connection to the underfloor chilled water supply and return loop, and any necessary couplings for connecting to the proposed solution. Specify compliance on the Response Spreadsheet in Appendix C for Compute Nodes and Appendix D for GPU Nodes, Environmental tab.

5.9.6.4 Condensate
Respondents MUST specify how the proposed heat exchangers handle condensate. There is an under-floor condensate manifold that has male ½" push-to-connect fittings (Parker P/N W68PL-8-8 fitting or equivalent NTPF). If condensate hoses are provided, there MUST be 1 per rack with a ½" female push-to-connect fittings. Hoses MUST be 10' in length or longer. Any adapters MUST be provided by the respondent. Specify compliance in the Response Spreadsheet in Appendix C for Compute Nodes and Appendix D for GPU Nodes, Environmental tab.

5.9.6.5 Air Flow
Proposed hardware MUST have front to back air flow. Specify compliance in the Response Spreadsheet in Appendix C for Compute Nodes and Appendix D for GPU Nodes, Environmental tab.

5.9.7 Delivery Path
The University Computer Center has a loading dock for deliveries. A detailed diagram of the delivery path including door and elevator dimensions is available upon request through the purchasing agent (see Appendix B). Proposed solutions

MUST be able to be moved to and installed in the research data center facility within the dimensions specified in the delivery path document. If necessary, equipment can be uncrated on the loading dock.

5.10 CPU Compute Nodes

This section includes all relevant requirements for CPU-only compute nodes. There are two node types included in this section, identified as "Standard" and "Large Memory". Respondents to this section MUST include all components required by this section, including configurations for both Standard and Large Memory nodes. See appendix A for a glossary of terms. Responses to this section must complete in full all pages of the CPU Compute Nodes Response Sheet, included here as Appendix C.

5.10.1 General Requirements

Compliance with the following requirements MUST be indicated on the CPU Compute Nodes Response Spreadsheet, included here as Appendix C, CPU Compute tab.

5.10.1.1 New Hardware

All components and equipment provided in responses MUST be new. Used or refurbished hardware is not acceptable.

5.10.1.2 Operating System Support

Respondent MUST support Rocky Linux 9 on all proposed node hardware

5.10.1.3 Processors

All processors used in nodes for this section MUST meet the following requirements

- Intel or AMD x86 64-bit
- Base all-core frequency no less than 2.1GHz
- Feature set that includes support for AVX2 at minimum
- All general-purpose processors cores in this section MUST support the same feature(s)/instruction set(s)

5.10.1.4 Memory

All proposed compute systems MUST meet the following requirements
- MUST populate at least one DIMM on each memory channel available from each CPU
- MUST provide balanced memory configurations, e.g. a host CPU with 12 memory channels should have a populated DIMM quantity that is a multiple of 12
- MUST provide a memory capacity ratio of no less than 4GiB per physical CPU core as configured
- SHOULD utilize no more than one memory DIMM per channel unless otherwise contraindicated

5.10.1.5 Network Interfaces

Each node MUST meet the following network interface requirements
- MUST include a dedicated Ethernet NIC with at least one RJ-45 port that supports 1Gb/s connection rate and PXE
- MUST include a dedicated 25 Gb/s Ethernet NIC with a minimum of 2 SFP28 ports that support the RoCE protocol

- MUST include a dedicated HDR100 Infiniband HCA with at least one QSFP56 port

5.10.1.6   Local Node Storage

All compute nodes MUST include a minimum of 2TiB usable (±10%) uncompressed local NVMe-based disk. This disk is not required to be hot-swappable.

5.10.1.7   IPMI Interface

All compute nodes MUST include an IPMI-compatible management controller that meets the following requirements

- Support for NIC-sharing with on-board RJ-45 interface
- Support for IPMI over LAN
- Support for web-based remote graphical virtual console
- Support for VLAN tagging
- Support for Serial-over-LAN

5.10.2   Rack Infrastructure Requirements

The following should be indicated in the Response Spreadsheet in Appendix C

5.10.2.1   All racks MUST meet environmental specifications as defined in 5.9

5.10.2.2   All proposals MUST include all necessary rack infrastructure to house, power, and cool all equipment contained in the rack including, but not limited to: compute nodes, required communication fabric switching, cooling support infrastructure, and monitoring interfaces.

5.10.2.3   Specify pricing for rack and all proposed rack support components including required fabric switching on Response Sheet in Appendix C.

5.10.2.4   Respondents MUST include a comprehensive rack layout diagram of a fully-provisioned rack as well as a diagram of the complete solution as proposed. The preferred file format is Adobe PDF, Excel file format is acceptable. This SHOULD include all rack components, networking, power, and chilled water with requisite external power connections identified and the location for water connections.

5.10.2.5   Specify the weight of a fully loaded rack to include the rack and all shared infrastructure (heat exchangers, CDU, PDUs, switches, patch panels, etc.), including the estimated weight of water or coolant, excluding compute node hardware.

5.10.3   Communications Fabric Infrastructure Requirements

Each rack that houses compute nodes has the following communications fabric requirements

5.10.3.1   Proposals MUST include the following fabric switches

- **Management Fabric**

  1x Mellanox SN2201 Ethernet Switch (Cumulus Linux)
  - Airflow direction SHOULD match hot-air exhaust orientation of proposed server systems
  - Proposals SHOULD include a second identical switch if the node count in the rack exceeds 42 nodes
  - Proposals SHOULD reserve no less than 2x 100G ports per switch for customer use

- **Infiniband Fabric**

  1x Mellanox QM8700 InfiniBand Switch
  - Airflow direction SHOULD match hot-air exhaust orientation of proposed server systems

- Proposals SHOULD include a second identical switch if the node count in the rack exceeds 80 nodes
- **Ethernet Fabric**
Respondents have the following options for 25G ethernet fabric switching
  - For proposals where fully loaded compute racks include no more than 48 nodes
    - 1x Mellanox SN3420 Ethernet Switch (Cumulus Linux)
      - Airflow direction SHOULD match hot-air exhaust orientation of proposed server systems
      - Proposals SHOULD reserve no less than 8x 100G ports per switch for customer use
  - For proposals where fully loaded compute racks include no more than 80 nodes
    - 1x Mellanox SN3200C Ethernet Switch (Cumulus Linux)
      - Airflow direction SHOULD match hot-air exhaust orientation of proposed server systems
      - Proposals SHOULD reserve no less than 8x 100G ports per switch for customer use

5.10.3.2 Proposals MUST include physical installation and cabling of all nodes to in-rack fabric switching using the following cable types
- Category 6 or higher RJ-45 (1 port cabled per node, 28 or higher AWG)
- Infiniband: 200G HDR -> 2x 100G HDR (Passive/copper preferred, 1 port cabled per node)
- For proposals utilizing the Mellanox SN3200C Ethernet Switch
  - 100G QSFP28 multimode MPO-compatible optics for switch ports, 25G SFP28 LC-compatible optics for server ports, MTP/MPO harness-style OM4-rated fiber optic cable, MPO/MTP UPC female -> 4xLC UPC Duplex
- For proposals utilizing the Mellanox SN3420 Ethernet Switch
  - Multi-mode SFP28 optics for both switch and server with appropriate length OM4-rated fiber optic jumpers

5.10.3.3 Proposals SHOULD optimize switch placement to minimize excess cable length as much as possible

5.10.3.4 Proposals SHOULD attempt where possible to keep communications fabric cabling separated from power cabling in rack cable management

5.10.3.5 Proposals SHOULD NOT include any time or services specific to software configuration of fabric switching

5.10.3.6 Proposals SHOULD NOT include items or services related to rack-external links to/from any in-rack switches, these will be run, configured and managed by customer personnel

5.10.4 Standard Compute Nodes
The Standard Compute Node is a CPU-based compute node that is not required to include support for accelerators or large quantities/capacities of memory DIMMs. Respondents MAY use individual or multi-node chassis configurations as appropriate. For the purposes of this section, a "scalable unit" is defined as the bill of materials required to be purchased as one unit. This is meant to address situations

where multiple nodes are purchased in blocks, e.g. a 4-node enclosure-based product where the nodes are independent computers, but cannot be purchased separately from the enclosure. If your solution requires an enclosure, but the enclosure and the nodes can be purchased separately, "scalable unit" will refer to the node hardware only. For the purposes of the Response Spreadsheet in Appendix C, all "node" specifications refer to the independent functional nodes excepting information explicitly indicated as pertaining to enclosures/chassis.

5.10.4.1 All standard compute nodes MUST meet the following requirements
- For 19" EIA standard configurations: no less than 192 physical CPU cores per EIA RU
- For 21" OCP standard configurations: no less than 288 physical CPU cores per OCP OU

5.10.4.2 All proposals MUST provide the following information about the proposed Standard Compute Node in the Response Spreadsheet in Appendix C
- System Model Number
- Specify if chassis/enclosure is required (y/n)
  - RU or OU dimensions of chassis/enclosure
  - Weight of empty chassis/enclosure including power supplies and fan modules (if applicable)
  - Number of nodes supported by chassis/enclosure
- Node Model Number (if different from system/chassis/enclosure model number)
- Processor Specifications including
  - Manufacturer
  - Model Number
  - All-core base frequency (GHz)
  - All-core boost frequency (GHz)
  - All cache capacities (L1/L2/L3/L4 as appropriate)
  - Physical core count
  - Support for AVX512 (yes/no)
  - Total Processor HPL RPeak in GFLOPs
  - Estimated Processor Peak Power Consumption (Watts)
  - Processors/Sockets per node
- Memory Specifications including
  - Total number of DIMM slots provided by the node
  - Number of DIMM slots used as configured
  - Maximum per-DIMM capacity supported by the node
  - Per-DIMMs capacity as configured (GiB)
  - Effective speed of DIMMs as configured (MT/s)
  - Total memory capacity as configured (GiB)
- NVMe Storage Specifications including
  - Manufacturer
  - Model Number
  - Capacity in GiB
- Management Controller specifications
  - Complies with all requirements outlined in 5.10.1.7 (y/n)
- 1Gb/s RJ-45 Ethernet NIC specifications including
  - Manufacturer
  - Model Number
  - Port-count
- 25Gb/s SFP28 Ethernet NIC specifications including
  - Manufacturer

- ○ Model Number
  - ● HDR100 QSFP56 Infiniband HCA specifications including
    - ○ Model Number
  - ● Type and number of power connections required (e.g. IEC C19 x2)

5.10.5   Large Memory Nodes

The Large Memory Node is a CPU-based compute node that is specifically designed to support a larger quantity of system memory than is provided by a Standard Compute Node. Respondents MAY use individual or multi-node chassis configurations as appropriate. For the purposes of this section, a "scalable unit" is defined as the bill of materials required to be purchased as one unit. This is meant to address situations where multiple nodes are purchased in blocks, e.g. a 4-node enclosure-based product where the nodes are independent computers, but cannot be purchased separately from the enclosure. If your solution requires an enclosure, but the enclosure and the nodes can be purchased separately, "scalable unit" will refer to the node hardware only. For the purposes of the Response Spreadsheet in Appendix C, all "node" specifications refer to the independent functional nodes excepting information explicitly indicated as pertaining to enclosures/chassis.

5.10.5.1   All large memory nodes MUST meet the following requirements
- ● No less than 96 physical CPU cores per EIA RU/OCP OU
- ● No less than 3TiB of physical memory

5.10.5.2   All proposals MUST provide the following information about the proposed Large Memory Node in the Response Spreadsheet in Appendix C
- ● System Model Number
- ● Specify if chassis/enclosure is required (y/n)
  - ○ RU or OU dimensions of chassis/enclosure
  - ○ Weight of empty chassis/enclosure including power supplies and fan modules (if applicable)
  - ○ Number of nodes supported by chassis/enclosure
- ● Node Model Number (if different from system/chassis/enclosure model number)
- ● Processor Specifications including
  - ○ Manufacturer
  - ○ Model Number
  - ○ All-core base frequency (GHz)
  - ○ All-core boost frequency (GHz)
  - ○ All cache capacities (L1/L2/L3/L4 as appropriate)
  - ○ Physical core count
  - ○ Support for AVX512 (yes/no)
  - ○ Total Processor HPL RPeak in GFLOPs
  - ○ Estimated Processor Peak Power Consumption (Watts)
- ● Memory Specifications including
  - ○ Total number of DIMM slots provided by the node
  - ○ Number of DIMM slots used as configured
  - ○ Maximum per-DIMM capacity supported by the node
  - ○ Per-DIMMs capacity as configured (GiB)
  - ○ Effective speed of DIMMs as configured (MT/s)
  - ○ Total memory capacity as configured (GiB)
- ● NVMe Storage Specifications including
  - ○ Manufacturer
  - ○ Model Number

- ○ Capacity in GiB
- ● Management Controller specifications
  - ○ Complies with all requirements outlined in 5.10.1.7 (y/n)
- ● 1Gb/s RJ-45 Ethernet NIC specifications including
  - ○ Manufacturer
  - ○ Model Number
  - ○ Port-count
- ● 25Gb/s SFP28 Ethernet NIC specifications including
  - ○ Manufacturer
  - ○ Model Number
- ● HDR100 QSFP56 Infiniband HCA specifications including
  - ○ Model Number
- ● Type and number of power connections required (e.g. IEC C19 x2)

5.10.6 Pricing

All pricing information MUST be entered on the provided Compute Pricing response sheet in Appendix C, Pricing tab.

Total solution cost for proposals responding to this section MUST NOT exceed $2,000,000.

All pricing MUST include the term for which that pricing will be guaranteed after award for purposes of expansion investment by campus entities, e.g. 90 days. Respondents MAY optionally provide an estimated price for each item when that term ends. Respondents MAY optionally provide any further information about pricing terms or programs as relevant.

The following pricing specifics are required for all proposals:

5.10.6.1	Total cost of proposed solution
5.10.6.2	Specify the price per scalable unit for a Standard node (see 5.10.4) including co-terminated maintenance with the original system purchase.
5.10.6.3	Specify the price per scalable unit (see 5.10.5) for Large Memory node in the proposed configuration to allow for future expansion including co-terminated maintenance with the original system purchase.
5.10.6.4	Specify the price of an empty rack with required water cooling components, power distribution units, and communications fabric switches including co-terminated maintenance with the original system purchase
5.10.6.5	Specify the pricing of any software proposed (per seat, site license, etc.) including co-terminated maintenance with the original system purchase
5.10.6.6	Specify the vendors ability to offer price protection policies for each component over the life of the contract. Examples of price protection includes but is not limited to, price matching, Maximum allowable margins, etc.

After award, the winning respondent will be expected to schedule no less than quarterly update meetings with UA staff to discuss pricing and availability. These updates will be expected to include

- Current pricing for scalable units as configured in this proposal at the time of the meeting
- Estimated lead time for scalable units as configured in this proposal at the time of the meeting
- Suggested or required component substitutions or configuration changes to scalable units due to market conditions
- Any forward-looking/roadmap information relevant to the continued availability of platforms or components used in the scalable units

5.10.7 Benchmarking

REQUIRED benchmarking software will be High-Performance LINPACK
https://top500.org/project/linpack/
https://www.netlib.org/benchmark/hpl/

5.10.7.1 Respondents are REQUIRED to provide actual or estimated results for the High-Performance LINPACK benchmark. Rpeak (theoretical) and Rmax (estimated or actual) values MUST both be provided.

5.10.7.2 Benchmarks MUST be run under Rocky Linux 9

5.10.7.3 Respondents MAY use optimized implementations of HPL designed to maximize performance on specific hardware. If an optimized implementation is used, respondent MUST provide one of:
- A link where the binary used, or for which estimates are provided, is available for download
- A link where the optimized source code is available for download along with all necessary configuration and compilation steps to produce the equivalent binary used, or for which estimates are provided

5.10.7.4 Benchmark results MUST represent the performance of a single node. In the case of multi-node enclosure or chassis-based systems, results should represent the performance of a single independent node.

5.10.7.5 Respondents MAY additionally provide an estimated or measured power draw for the benchmark run for the purposes of demonstrating energy efficiency. In the case of multi-node enclosure or chassis systems where multiple nodes share infrastructure like power supplies and cooling equipment, respondents MAY additionally provide an aggregate score for a fully loaded enclosure or chassis. If respondent provides this result, it MUST be provided in addition to the result for a single node.

5.10.7.6 Benchmarks MUST be run with Symmetric Multi-Threading / HyperThreading disabled

5.10.7.7 Benchmarks MUST be run with all proposed hardware components online and operational. No components provided in the bid may be removed, powered down, or otherwise disabled for the purposes of benchmarking.

5.10.7.8 Benchmark results MUST be reported on the Benchmark Response Sheet in Appendix C - Compute Benchmarks tab

5.10.7.9 Reported benchmark results will be validated during acceptance testing as described in section 5.10.9

5.10.7.10 Respondents MUST provide a result for both a Standard Compute Node and a Large Memory Node

5.10.8 Installation

Compute system installation will proceed on a schedule negotiated and agreed upon between the winning respondent and the University of Arizona. The following

information pertinent to installation services for proposals MUST be entered on the Response Spreadsheet in Appendix C, Compute tab.

5.10.8.1   All responses MUST include all costs for physical installation services including but not limited to
- Unboxing
- Assembly
- Rack Setup
- Equipment Racking
- Cabling of all communications fabrics
- Basic functional testing verification

5.10.8.2   All responses MUST include costs for labeling, production of elevation diagrams, and any other relevant installation documentation for all installed equipment including but not limited to the following:
- Power Distribution Units
- Cooling Distribution Units
- Communications Fabric Switches (labels front and back)
- Individual Nodes (labels front and back)
  - Enclosures/Chassis if applicable (labels front and back)
- Power Cabling (labels both ends)
- Communications Cabling (labels both ends)
- Coolant distribution hoses (labels both ends)

5.10.9   Acceptance Testing

Acceptance tests will be conducted following the date installation is complete. During acceptance testing, benchmarks will be run on no less than 10% of provided nodes selected by the University. Upon completion of the benchmarks, the University System Administrators will be installing and testing the batch scheduler, applications, libraries, tools, etc. and may allow testing users to access the system to run test jobs at their discretion.

5.10.9.1   Uptime Acceptance Test

5.10.9.1.1   All computing systems MUST pass the 28-day uptime acceptance test by achieving an Uptime Percentage of 99.5% or better on 28 consecutive days within 35 days of the start of the acceptance test

5.10.9.1.2   Respondents MAY, at their discretion, provide a pool of field-replaceable components on-site for the acceptance test and/or on-site technicians for some or all of the acceptance test period to address hardware-related outages

5.10.9.1.3   During the acceptance period respondents MUST report all failures, root cause, and time for resolutions

5.10.9.1.4   All the required and proposed software MUST be installed and licensed prior to the acceptance test start

5.10.9.1.5   During the Acceptance Test period the respondent MUST facilitate benchmarks as specified in section 5.10.7 on no less than 10% of total nodes (rounded up to the next integer number of nodes) selected on-site by UA staff at the

start of acceptance testing. The benchmarks MUST meet or exceed the results submitted by the respondent in section 5.10.7.

5.10.9.1.6   Respondents MUST provide as part of their proposal a high-level plan outlining how they propose to facilitate the running of required benchmarks during the acceptance testing period. These plans MAY include:
- Respondents MAY provide on-site and/or remote staff to oversee hands-on execution of benchmarking runs
- Respondents MAY provide instructions to UA staff to execute benchmarking runs

These plans MAY NOT include:
- Respondents MUST NOT require or depend upon unsupervised remote access to cluster resources to facilitate benchmark runs
- Respondents MUST NOT require or depend upon unsupervised physical access to cluster resources to facilitate benchmark runs

5.10.9.1.7   All compute node hardware not identified for benchmarking during acceptance testing MUST be available for University of Arizona staff for testing and development

5.10.9.2   Acceptance Test Outages

Acceptance test outages are calculated using the formula shown below. All hardware, whether involved in benchmark validation or not, is subject to reporting requirements for outages. Due to the number of components in a complete system and the widely varying impacts of different types of faults, we have chosen to simplify evaluation by dividing outages into two categories:

5.10.9.2.1   Standard Outage (SO)
- A Standard Outage is any outage that disrupts node availability for less than 24 hours
- A Standard Outage will be counted as 1 day of outage time to simulate standard next business day support
- A Standard Outage impacting multiple nodes counts as 1 Standard Outage for every node impacted

5.10.9.2.2   Extended Outage (EO)
- An Extended Outage is any outage that disrupts node availability for longer than 24 hours
- An Extended Outage will be will be measured in day-length periods rounded up to the next integer number of days
- An Extended Outage will be assessed 1 additional day of time if parts replacement is required
- An Extended Outage impacting multiple nodes counts as 1 Extended Outage for each node impacted

5.10.9.2.3   Total Outage (TO) will be the sum of the Standard and Extended Outages measured in whole integer days

$$TO\ (days)\ =\ Total\ SO\ (days)\ +\ Total\ EO\ (days)$$

5.10.9.2.4   Total Time (TT) will be the total number of nodes multiplied by the 28-day testing period

$$TT\ (days)\ =\ NodeCount\ *\ 28$$

5.10.9.2.5 Total Availability (TA) will be calculated as the Total Outage (TO) subtracted from the Total Time (TT) divided by the Total Time (TT), represented as a percentage

$$TA = \frac{TT - TO}{TT} * 100$$

5.10.9.3 Successful Acceptance Test Conditions

    5.10.9.3.1 Total Availability (TA) as calculated above is REQUIRED to be no less than 99.5%.

$$TA \geq 99.5\%$$

    5.10.9.3.2 Node hardware identified as specified in 5.10.9.1.5 is REQUIRED to have met or exceeded per-node benchmark scores as submitted

5.10.9.4 Acceptance Testing Remediation Period

If acceptance testing has not been successfully completed within 35 days of start, the following measures will enter into effect

    5.10.9.4.1 Respondent will be assessed liquidated damages of $500.00 per day over 35

    5.10.9.4.2 Respondent and representatives of the University of Arizona will enter into a discussion to determine the cause of the failure and establish a plan for reaching a mutually agreeable remediation state. This plan MUST have an agreed-upon end date no more than 35 days in the future.

    5.10.9.4.3 If the end of the agreed time period is reached and planned remediation has not been successfully completed to the satisfaction of the University of Arizona, the equipment MAY be returned to the respondent at the respondent's expense and a new vendor selected.

The UA cannot delay installation or acceptance and therefore delay the payment without negotiating with the selected respondent on the length of the acceptance test.

5.10.10 **Technical Support, Maintenance, Documentation and Training**

Respondent MUST provide ongoing technical support, maintenance, documentation and training for the proposed compute components. Inclusion of the following information in the proposal MUST be entered on the Response Spreadsheet in Appendix C Compute Tab. All pricing information MUST be entered on the provided pricing document in Appendix C.

    5.10.10.1 Technical Support, Maintenance, and Documentation

        5.10.10.1.1 Respondent MUST provide Technical Support and Hardware Maintenance contracts for all proposed hardware and software for a term of 5 years. Maintenance contracts MUST go into effect no earlier than the completion of acceptance testing. Contracts MUST include but are not limited to the following (include URL where appropriate)

- Web-based service request site
- Next-business-day parts replacement
- 24x7 toll-free phone and online support
- Access to knowledge bases, FAQs, Known Issues, patches
- Documentation for all proposed hardware and software, tutorials, white-papers, security bulletins, etc.

5.10.10.1.2 Specify pricing on the pricing response sheet in Appendix C for initial technical support and hardware maintenance contracts for all proposed hardware and software for a term of 5 years.

5.10.10.1.3 Provide full contract language for Technical Support and Maintenance contracts as proposed.

5.10.10.2 Training

Respondent SHOULD provide Operations, System Administration and User training options. These MAY be provided through partnerships with OEMs or third-party training resources. Respondents MAY include a full catalog (including pricing) of available courses. Respondent SHOULD provide detailed descriptions and pricing for the following specific areas:

5.10.10.2.1 User software porting and optimization classes, procedural recommendations and consulting services. These MUST be suitable for attendees which MAY include systems administrators, operations staff and researchers (graduate level students, staff, and faculty). Specify the cost of training on compute pricing document in Appendix C.

5.10.10.2.2 Systems Administration support staff training customized and specific to the maintenance and operation of the proposed system including any necessary certifications for self-maintained hardware repair, if applicable. Specify the cost of training on compute pricing document in Appendix C.

5.10.10.2.3 Include URLs for all online training resources.

5.10.11 References

References are specific contacts at sites that are currently customers of respondent.

Respondent MUST provide three (3) reference contacts. These MUST be entered into the contact information response sheet located in Appendix C Compute References tab including the following information

- Organization Name
- Contact Name
- Contact Title
- Contact Telephone Number
- Contact E-Mail Address

References SHOULD meet the following criteria:

- References SHOULD be from comparable United States-based educational or research institutions
- References SHOULD operate systems of comparable size and capability to that included in the proposal

References SHOULD include a basic description of the comparable HPC System(s) installed at each reference site (number of nodes, number of CPU cores, total system memory, approximate LINPACK RMax).

5.10.12 Evaluation Criteria

The following criteria will be used as weighted factors in the evaluation of all proposals responding to section 5.10.

- Cost per performance for the standard node configuration
- Buy-in cost and scalability of the standard node configuration
- Environmentals including floor space, power usage, heat output and performance density the standard node configuration
- References and reputation
- Additional features and/or capabilities that add value to the proposal

5.11 GPU Compute Nodes

This section includes all relevant requirements for the GPU-optimized compute nodes. See appendix A for a glossary of terms.

5.11.1 General Requirements

Compliance with the following requirements MUST be indicated on the Response Spreadsheet in Appendix D, GPU Compute tab.

5.11.1.1 New Hardware

All components and equipment provided in responses MUST be new. Used or refurbished hardware is not acceptable.

5.11.1.2 Operating System Support

Respondent MUST support Rocky Linux 9 on all proposed node hardware

5.11.1.3 Processors

All processors used in nodes for this section MUST meet the following requirements

- MUST be either Intel or AMD x86 64-bit
- MUST provide a feature set that includes support for AVX2 at minimum
- All general-purpose processors cores in this section MUST support the same feature(s)/instruction set(s)
- MUST provide no less than 16 physical host CPU cores per installed accelerator
- MUST provide an all-core base frequency no less than 2.4GHz
- SHOULD provide an all-core turbo frequency no less than 3.0GHz

5.11.1.4 GPU/Accelerators

All GPU/accelerators used in nodes for this section MUST meet the following requirements
- Respondents MUST use NVIDIA H200 NVL (PCIe) GPU accelerators
- Node configurations MUST support either 2-way or 4-way NVLink bridge configuration

5.11.1.5 Memory
All proposed compute systems MUST meet the following requirements
- MUST populate at least one DIMM on each memory channel available from each CPU
- MUST provide balanced memory configurations, e.g. a host CPU with 12 memory channels should have a populated DIMM quantity that is a multiple of 12
- MUST provide no less than 256GB of system memory per accelerator installed in the node
- SHOULD utilize no more than one memory DIMM per channel unless otherwise contraindicated

5.11.1.6 Network Interfaces
Each node MUST meet the following network interface requirements
- MUST include a dedicated Ethernet NIC with at least one RJ-45 port that supports 1Gb/s connection rate and PXE
- MUST include a dedicated 100Gb/s Ethernet NIC or NICs providing 1x QSFP28 100Gb/s port per 4 GPUs installed in the node
- MUST include a dedicated HDR200 Infiniband HCA or HCAs providing 1x QSFP56 HDR200 port per 2 GPUs installed in the node

5.11.1.7 Local Node Storage
All compute nodes MUST include a minimum of 2TiB usable (±10%) uncompressed local NVMe-based disk. This disk is not required to be hot-swappable.

5.11.1.8 IPMI Interface
All compute nodes MUST include an IPMI-compatible management controller that meets the following requirements
- Support for NIC-sharing with on-board RJ-45 interface
- Support for IPMI over LAN
- Support for web-based remote graphical virtual console
- Support for VLAN tagging
- Support for Serial-over-LAN

5.11.2 Rack Infrastructure Requirements
The following should be indicated in the Response Spreadsheet in Appendix D.

5.11.2.1 All racks MUST meet environmental specifications as defined in 5.9

5.11.2.2 All proposals MUST include all necessary rack infrastructure to house, power all and cool all equipment contained in the rack including, but not limited to: compute nodes, required communication fabric switching, cooling support infrastructure, and monitoring interfaces.

5.11.2.3 Specify pricing for rack and all proposed rack support components including required fabric switching on the Response Sheet in Appendix D, Pricing tab.

5.11.2.4 Respondents MUST include a comprehensive rack layout diagram of a fully-provisioned rack as well as a diagram of the complete solution as proposed. The preferred file format is Adobe Acrobat, Excel format is acceptable. This SHOULD include all rack components, networking, power, and chilled water with requisite external power connections identified and the location for water connections.

5.11.2.5   Specify the weight of a fully loaded rack to include the rack and all shared infrastructure (heat exchangers, CDU, PDUs, switches, patch panels, etc.), including the estimated weight of water or coolant, excluding compute node hardware.

5.11.3   Communications Fabric Infrastructure Requirements
Each rack that houses compute nodes has the following communications fabric requirements

5.11.3.1   Proposals MUST include the following fabric switches
- **Management Fabric**
  1x Mellanox SN2201 Ethernet Switch (Cumulus Linux)
    - Airflow direction SHOULD match hot-air exhaust orientation of proposed server systems
    - Proposals SHOULD include a second identical switch if the node count in the rack exceeds 42 nodes
    - Proposals SHOULD reserve no less than 2x 100G ports per switch for customer use
- **Infiniband Fabric**
  1x Mellanox QM8700 InfiniBand Switch
    - Airflow direction SHOULD match hot-air exhaust orientation of proposed server systems
    - Proposals SHOULD include a second identical switch if the node count in the rack exceeds 80 nodes
- **Ethernet Fabric**
  1x Mellanox SN3200C Ethernet Switch (Cumulus Linux)
    - Airflow direction SHOULD match hot-air exhaust orientation of proposed server systems
    - Proposals SHOULD reserve no less than 8x 100Gb ports per switch for customer use
    - Proposals SHOULD include a second identical switch if the GPU/accelerator count in the rack exceeds 80

5.11.3.2   Proposals MUST include physical installation and cabling of all nodes to in-rack fabric switching using the following cable types
- Category 6 or higher RJ-45 (1 port cabled per node, 28 or higher AWG)
- Infiniband: 200G HDR -> 200G HDR (Passive/copper preferred)
- 100G Ethernet: 100G QSFP28 -> QSFP28 (Passive/copper preferred)

5.11.3.3   Proposals SHOULD optimize switch placement to minimize excess cable length as much as possible

5.11.3.4   Proposals SHOULD attempt where possible to keep communications fabric cabling separated from power cabling in rack cable management

5.11.3.5   Proposals SHOULD NOT include any time or services specific to software configuration of fabric switching

5.11.3.6   Proposals SHOULD NOT include items or services related to rack-external links to/from any in-rack switches, these will be run, configured and managed by customer personnel

5.11.4   GPU Compute Nodes
The GPU Compute Node is a GPU-based compute node that is specifically architected to make efficient use of GPU accelerators. Respondents MAY use individual or multi-node chassis configurations as appropriate. For the purposes of this section, a "scalable unit" is defined as the bill of materials required to be purchased as one unit.

This is meant to address situations where multiple nodes are purchased in blocks, e.g. a 4-node enclosure-based product where the nodes are independent computers, but cannot be purchased separately from the enclosure. If your solution requires an enclosure, but the enclosure and the nodes can be purchased separately, "scalable unit" will refer to the node hardware only. For the purposes of the Response Spreadsheet in Appendix D, all "node" specifications refer to the independent functional nodes excepting information explicitly indicated as pertaining to enclosures/chassis.

5.11.4.1 All GPU compute nodes MUST meet the following requirements
- For 19" EIA standard configurations: no less than 2 GPU accelerators per EIA RU
- For 21" OCP standard configurations: no less than 3 GPU accelerators per OCP OU

5.11.4.2 All proposals MUST provide the following information about the proposed GPU Compute Node in the Response Spreadsheet in Appendix D
- System Model Number
- Specify if chassis/enclosure is required (y/n)
  - RU or OU dimensions of chassis/enclosure
  - Weight of empty chassis/enclosure including power supplies and fan modules (if applicable)
  - Number of nodes supported by chassis/enclosure
- Node Model Number (if different from system/chassis/enclosure model number)
- GPU/Accelerator support specifications including:
  - Number of H200 NVL (PCIe) Accelerators supported
  - Number of H200 NVL (PCIe) Accelerators installed
- Processor Specifications including
  - Manufacturer
  - Model Number
  - All-core base frequency (GHz)
  - All-core boost frequency (GHz)
  - All cache capacities (L1/L2/L3/L4 as appropriate)
  - Physical core count
  - Support for AVX512 (yes/no)
  - Total Processor HPL RPeak in GFLOPs
  - Estimated Processor Peak Power Consumption (Watts)
- Memory Specifications including
  - Total number of DIMM slots provided by the node
  - Number of DIMM slots used as configured
  - Maximum per-DIMM capacity supported by the node
  - Per-DIMMs capacity as configured (GiB)
  - Effective speed of DIMMs as configured (MT/s)
  - Total memory capacity as configured (GiB)
- NVMe Storage Specifications including
  - Manufacturer
  - Model Number
  - Capacity in GiB
- Management Controller specifications
  - Complies with all requirements outlined in 5.10.1.7 (y/n)
- 1Gb/s RJ-45 Ethernet NIC specifications including
  - Manufacturer
  - Model Number

- - - Port-count
  - 100Gb/s QSFP28 Ethernet NIC specifications including
    - Manufacturer
    - Model Number
  - HDR200 QSFP56 Infiniband HCA specifications including
    - Model Number
  - Type and number of power connections required (e.g. IEC C19 x2)

5.11.5 Pricing

All pricing information MUST be entered on the provided Response Sheet in Appendix D, Pricing tab.

Total solution cost for proposals responding to this section MUST NOT exceed $2,000,000.

All pricing MUST include the term for which that pricing will be guaranteed after award for purposes of expansion investment by campus entities, e.g. 90 days. Respondents MAY optionally provide an estimated price for each item when that term ends. Respondents MAY optionally provide any further information about pricing terms or programs as relevant.

The following pricing specifics are required for all proposals:

5.11.5.1 Total cost of proposed solution

5.11.5.2 Specify the price per scalable unit for a GPU compute node (see 5.11.4) including co-terminated maintenance with the original system purchase.

5.11.5.3 Specify the price of an empty rack with required water cooling components, power distribution units, and communications fabric switches including co-terminated maintenance with the original system purchase

5.11.5.4 Specify the pricing of any software proposed (per seat, site license, etc.) including co-terminated maintenance with the original system purchase

5.11.5.5 Specify the vendors' ability to offer price protection policies for each component over the life of the contract. Examples of price protection includes but is not limited to, price matching, Maximum allowable margins, etc.

After award, the winning respondent will be expected to schedule no less than quarterly update meetings with UA staff to discuss pricing and availability. These updates will be expected to include

- Current pricing for scalable units as configured in this proposal at the time of the meeting
- Estimated lead time for scalable units as configured in this proposal at the time of the meeting
- Suggested or required component substitutions or configuration changes to scalable units due to market conditions
- Any forward-looking/roadmap information relevant to the continued availability of platforms or components used in the scalable units

5.11.6 **Benchmarking**
REQUIRED benchmarking software will be High-Performance LINPACK
https://top500.org/project/linpack/
https://www.netlib.org/benchmark/hpl/

    5.11.6.1 Respondents are REQUIRED to provide actual or estimated results for the High-Performance LINPACK benchmark using the GPU accelerators in the node. Rpeak (theoretical) and Rmax (estimated or actual) values MUST both be provided.

    5.11.6.2 Benchmarks MUST be run under Rocky Linux 9

    5.11.6.3 Respondents MAY use optimized implementations of HPL designed to maximize performance on specific hardware. If an optimized implementation is used, respondent MUST provide one of:
- A link where the binary used, or for which estimates are provided, is available for download
- A link where the optimized source code is available for download along with all necessary configuration and compilation steps to produce the equivalent binary used, or for which estimates are provided

    5.11.6.4 Benchmark results MUST represent the performance of a single node. In the case of multi-node enclosure or chassis-based systems, results should represent the performance of a single independent node.

    5.11.6.5 Respondents MAY additionally provide an estimated or measured power draw for the benchmark run for the purposes of demonstrating energy efficiency. In the case of multi-node enclosure or chassis systems where multiple nodes share infrastructure like power supplies and cooling equipment, respondents MAY additionally provide an aggregate score for a fully loaded enclosure or chassis. If respondent provides this result, it MUST be provided in addition to the result for a single node.

    5.11.6.6 Benchmarks MUST be run with Symmetric Multi-Threading / HyperThreading disabled

    5.11.6.7 Benchmarks MUST be run with all proposed hardware components online and operational. No components provided in the bid may be removed, powered down, or otherwise disabled for the purposes of benchmarking.

    5.11.6.8 Benchmark results MUST be reported on the Benchmark Response Sheet in Appendix D - GPU Compute Benchmarks tab

    5.11.6.9 Reported benchmark results will be validated during acceptance testing as described in section 5.10.9

5.11.7 **Installation**
Compute system installation will proceed on a schedule negotiated and agreed upon between the winning respondent and the University of Arizona. The following information pertinent to installation services for proposals MUST be entered on the Response Spreadsheet in Appendix D, GPU Compute tab.

    5.11.7.1 All responses MUST include all costs for physical installation services including but not limited to
- Unboxing
- Assembly
- Rack Setup
- Equipment Racking
- Cabling of all communications fabrics

- Basic functional testing verification

5.11.7.2 All responses MUST include costs for labeling, production of rack elevation diagrams, and any other relevant installation documentation for all installed equipment including but not limited to the following:
- Power Distribution Units
- Cooling Distribution Units
- Communications Fabric Switches (labels front and back)
- Individual Nodes (labels front and back)
  - Enclosures/Chassis if applicable (labels front and back)
- Power Cabling (labels both ends)
- Communications Cabling (labels both ends)
- Coolant distribution hoses (labels both ends)

5.11.8   Acceptance Testing

Acceptance tests will be conducted following the date installation is complete. During acceptance testing, benchmarks will be run on no less than 10% of provided nodes selected by the University. Upon completion of the benchmarks, the University System Administrators will be installing and testing the batch scheduler, applications, libraries, tools, etc. and may allow testing users to access the system to run test jobs at their discretion.

5.11.8.1   Uptime Acceptance Test

5.11.8.1.1   All computing systems MUST pass the 28-day uptime acceptance test by achieving an Uptime Percentage of 99.5% or better on 28 consecutive days within 35 days of the start of the acceptance test

5.11.8.1.2   Respondents MAY, at their discretion, provide a pool of field-replaceable components on-site for the acceptance test and/or on-site technicians for some or all of the acceptance test period to address hardware-related outages

5.11.8.1.3   During the acceptance period respondents MUST report all failures, root cause, and time for resolutions

5.11.8.1.4   All the required and proposed software MUST be installed and licensed prior to the acceptance test start

5.11.8.1.5   During the Acceptance Test period the respondent MUST facilitate benchmarks as specified in section 5.11.6 on no less than 10% of total nodes (rounded up to the next integer number of nodes) selected on-site by UA staff at the

start of acceptance testing. The benchmarks MUST meet or exceed the results submitted by the respondent in section 5.11.6.

5.11.8.1.6   Respondents MUST provide as part of their proposal a high-level plan outlining how they propose to facilitate the running of required benchmarks during the acceptance testing period. These plans MAY include:
- Respondents MAY provide on-site and/or remote staff to oversee hands-on execution of benchmarking runs
- Respondents MAY provide instructions to UA staff to execute benchmarking runs

These plans MAY NOT include:

- Respondents MUST NOT require or depend upon unsupervised remote access to cluster resources to facilitate benchmark runs
- Respondents MUST NOT require or depend upon unsupervised physical access to cluster resources to facilitate benchmark runs

5.11.8.1.7 All compute node hardware not identified for benchmarking during acceptance testing MUST be available for University of Arizona staff for testing and development

5.11.8.2 Acceptance Test Outages

Acceptance test outages are calculated using the formula shown below. All hardware, whether involved in benchmark validation or not, is subject to reporting requirements for outages. Due to the number of components in a complete system and the widely varying impacts of different types of faults, we have chosen to simplify evaluation by dividing outages into two categories:

5.11.8.2.1 Standard Outage (SO)
- A Standard Outage is any outage that disrupts node availability for less than 24 hours
- A Standard Outage will be counted as 1 day of outage time to simulate standard next business day support
- A Standard Outage impacting multiple nodes counts as 1 Standard Outage for every node impacted

5.11.8.2.2 Extended Outage (EO)
- An Extended Outage is any outage that disrupts node availability for longer than 24 hours
- An Extended Outage will be will be measured in day-length periods rounded up to the next integer number of days
- An Extended Outage will be assessed 1 additional day of time if parts replacement is required
- An Extended Outage impacting multiple nodes counts as 1 Extended Outage for each node impacted

5.11.8.2.3 Total Outage (TO) will be the sum of the Standard and Extended Outages measured in whole integer days

$$TO\ (days)\ =\ Total\ SO\ (days)\ +\ Total\ EO\ (days)$$

5.11.8.2.4 Total Time (TT) will be the total number of nodes multiplied by the 28-day testing period

$$TT\ (days)\ =\ NodeCount\ *\ 28$$

5.11.8.2.5 Total Availability (TA) will be calculated as the Total Outage (TO) subtracted from the Total Time (TT) divided by the Total Time (TT), represented as a percentage

$$TA\ =\ \frac{TT - TO}{TT} * 100$$

5.11.8.3 Successful Acceptance Test Conditions

5.11.8.3.1 Total Availability (TA) as calculated above is REQUIRED to be no less than 99.5%.

$$TA \geq 99.5\%$$

5.11.8.3.2 Node hardware identified as specified in 5.10.9.1.5 is REQUIRED to have met or exceeded per-node benchmark scores as submitted

5.11.8.4 Acceptance Testing Remediation Period
If acceptance testing has not been successfully completed within 35 days of start, the following measures will enter into effect

    5.11.8.4.1 Respondent will be assessed liquidated damages of $500.00 per day over 35

    5.11.8.4.2 Respondent and representatives of the University of Arizona will enter into a discussion to determine the cause of the failure and establish a plan for reaching a mutually agreeable remediation state. This plan MUST have an agreed-upon end date no more than 35 days in the future.

    5.11.8.4.3 If the end of the agreed time period is reached and planned remediation has not been successfully completed to the satisfaction of the University of Arizona, the equipment MAY be returned to the respondent at the respondent's expense and a new vendor selected.

The UA cannot delay installation or acceptance and therefore delay the payment without negotiating with the selected respondent on the length of the acceptance test.

5.11.9 **Technical Support, Maintenance, Documentation and Training**
Respondent MUST provide ongoing technical support, maintenance, documentation and training for the proposed compute components. Inclusion of the following information in the proposal MUST be entered on the Response Spreadsheet in Appendix D, GPU Compute Tab. All pricing information MUST be entered on the provided pricing document in Appendix D, GPU Compute Pricing tab..

    5.11.9.1 Technical Support, Maintenance, and Documentation

        5.11.9.1.1 Respondent MUST provide Technical Support and Hardware Maintenance contracts for all proposed hardware and software for a term of 5 years. Maintenance contracts MUST go into effect no earlier than the completion of acceptance testing. Contracts MUST include but are not limited to the following (include URL where appropriate)
- Web-based service request site
- Next-business-day parts replacement
- 24x7 toll-free phone and online support
- Access to knowledge bases, FAQs, Known Issues, patches
- Documentation for all proposed hardware and software, tutorials, white-papers, security bulletins, etc.

        5.11.9.1.2 Specify pricing on the pricing response sheet in Appendix D, for initial technical support and hardware maintenance contracts for all proposed hardware and software for a term of 5 years.

        5.11.9.1.3 Provide full contract language for Technical Support and Maintenance contracts as proposed.

    5.11.9.2 Training
Respondent SHOULD provide Operations, System Administration and User training options. These MAY be provided through partnerships with OEMs or third-party training resources. Respondents MAY include a full catalog (including pricing) of available courses. Respondent SHOULD provide detailed descriptions and pricing for the following specific areas:

        5.11.9.2.1 User software porting and optimization classes, procedural recommendations and consulting services. These MUST

be suitable for attendees which MAY include systems administrators, operations staff and researchers (graduate level students, staff, and faculty). Specify the cost of training on compute pricing document in Appendix D.

5.11.9.2.2   Systems Administration support staff training customized and specific to the maintenance and operation of the proposed system including any necessary certifications for self-maintained hardware repair, if applicable. Specify the cost of training on compute pricing document in Appendix D

5.11.9.2.3   Include URLs for all online training resources.

5.11.10   References

References are specific contacts at sites that are currently customers of respondent.

Respondent MUST provide three (3) reference contacts. These MUST be entered into the contact information response sheet located in Appendix D, GPU Compute References tab including the following information

- Organization Name
- Contact Name
- Contact Title
- Contact Telephone Number
- Contact E-Mail Address

References SHOULD meet the following criteria:

- References SHOULD be from comparable United States-based educational or research institutions
- References SHOULD operate systems of comparable size and capability to that included in the proposal

References SHOULD include a basic description of the comparable HPC System(s) installed at each reference site (number of nodes, number of CPU cores, total system memory, approximate LINPACK RMax).

5.11.11   Evaluation Criteria

The following criteria will be used as weighted factors in the evaluation of all proposals responding to section 5.11.

- Cost per performance for the GPU node configuration
- Buy-in cost and scalability of the GPU node configuration
- Environmentals including floor space, power usage, heat output and performance density of the GPU node configuration
- References and reputation
- Additional features and/or capabilities that add value to the proposal

Appendix A: Glossary

Standard Node – A single node configuration that is used for CPU only workloads

GPU Node – A single node configuration featuring multiple Nvidia H200 NVL (PCIe) GPUs

Scalable Unit – Vendor defined unit of measure for the number of nodes required to be purchased as a unit for expansion purchasing, e.g. a 4-node chassis which is sold as a one unit.

Appendix B: Data Center Delivery Path

As stated in section 5.9,a confidential document describing the data center, loading dock, and delivery paths can be obtained from the RFP Purchasing Agent Zane Forier, zfforier@arizona.edu.

Appendix C: 5.10 CPU Node Response Sheet (Environmentals, specifications, references, benchmarks)

See downloadable Excel Response Spreadsheet. If you are NOT offering a proposal for section 5.10, this spreadsheet is not required in your proposal.

Appendix D: 5.11 GPU Node Response Sheet (Environmentals, specifications, references, benchmarks)

See downloadable Excel Response Spreadsheet. If you are NOT offering a proposal for section 5.11, this spreadsheet is not required in your proposal.

6.0 CERTIFICATIONS AND FORMS (Vendor to complete and return with proposal)

6.1   Certification of Proposal

6.2   Legal Workers Certification

6.3   Certification Regarding Debarment, Suspension, Proposed Debarment and other Responsibility Matters (Mar 1996 as amended)

6.4   Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (Apr 1991 as amended)

6.5   Performance Bond

6.6   Payment Bond

6.1.   Certification of Proposal (vendor to complete and return with proposal)

Explanation. This certification attests to the vendor's awareness and agreement to the content of this RFP and all accompanying provisions contained herein.

Action. Vendor is to ensure that the following certificate is duly completed and correctly executed by an authorized officer of your company.

This proposal is submitted in response to Request for Proposals # L302501, issued by the University of Arizona. The undersigned, as a duly authorized officer, hereby certifies that _____
_____ (Vendor Name), located at _____(address), agrees to be bound by the content of this proposal and agrees to comply with the terms, conditions and provisions of the referenced Request for Proposals (RFP) and any addenda thereto in the event of an award. Exceptions are to be noted as stated in the RFP. The proposal shall remain in effect for a period of ninety-(90) calendar days as of the Due Date for responses to the RFP.

The undersigned certifies that to the best of his/her knowledge: (check one)

☐   There is no officer or employee of the University of Arizona who has, or whose relative has, a substantial interest in any Contract award subsequent to this proposal.

☐   The names of any and all public officers or employees of the University of Arizona who have, or who's relative has, a substantial interest in any Contract award subsequent to this proposal are identified by name as part of this submittal.

The undersigned further certifies that their firm (check one) ☐ IS *or* ☐ IS NOT currently debarred, suspended, or proposed for debarment by any federal entity. The undersigned agrees to notify the University of any change in this status, should one occur, until such time as an award has been made under this procurement action.

In accordance with Purchasing Policy 4.3 – Small Business Utilization Program, the Undersigned further certifies that your business (check the appropriate areas) ☐ does *or* ☐ does not meet the Federal (S.B.A.) Small Business definition (FAR 19.001) and size standards (FAR 19.102). If it does, please "CHECK" one of the following: ☐ Small Business ☐ Small Disadvantaged ☐ Small Business Women-Owned ☐ Women-Owned Disadvantaged ☐ Veteran owned ☐ HUB Zone ☐ Disabled Veteran Owned ☐ Alaska Native Corp. ☐ Historically Black Colleges and Universities and Minority Institutions

Arizona Small Business (has less than 100 fulltime employees, including employees employed in any subsidiary or affiliated corporation) please "CHECK one of the following: ☐ AZ. Small Business   ☐ AZ. Women Owned ☐ AZ Disadvantaged ☐ AZ Disadvantaged Women-owned.

The undersigned further certifies that as a duly authorized officer, is authorized to negotiate in good faith on behalf of this firm for purposes of this Request for Proposals.

Name: _____   Title: _____

Signature: _____   Date: _____   Email: _____

F.E.I.N:_____

RFP Email and Notification Contact: _____

6.2.   LEGAL WORKER CERTIFICATION

Required for all Contracts for: Services; Construction or Maintenance of any Structure, Building or Transportation Facility; or Improvements to Real Property costing $100K and over.

Date: _____

Procurement and Contracting Services
University of Arizona
PO Box 210300
Tucson, AZ 85721-0300

As required by Arizona Revised Statutes §41-4401 the University is prohibited after September 30, 2008 from awarding a contract to any contractor who fails, or whose subcontractors fail, to comply with Arizona Revised Statutes § 23-214-A. The undersigned entity warrants that it complies fully with all federal immigration laws and regulations that relate to its employees, that it shall verify, through the employment verification pilot program as jointly administered by the U.S. Department of Homeland Security and the Social Security Administration or any of its successor programs, the employment eligibility of each employee hired after December 31, 2007, and that it shall require its subcontractors to provide the same warranties to the below entity.

The undersigned acknowledges that a breach of this warranty by the below entity or by any subcontractor(s) under any Contract resulting from this solicitation shall be deemed a material breach of the Contract and is grounds for penalties, including termination of the Contract by the University. The University retains the right to inspect the records of the below entity, subcontractor(s) and employee(s) who perform work under the Contract, and to conduct random verification of the employment records of the below entity and any subcontractor(s) who perform work under the Contract, to ensure that the below entity and each subcontractor is complying with the warranties set forth above. Contractor shall be responsible for all costs associated with compliance with such programs.

_____	_____
(Firm)	(Address)
_____	_____
(Signature Required)	(Phone)
_____	_____
(Print Name)	(Fax)
_____	_____
(Print Title)	(Federal Taxpayer ID Number)

(November 3, 2009)

6.3. CERTIFICATION REGARDING DEBARMENT SUSPENSION, PROPOSED DEBARMENT AND OTHER RESPONSIBILITY MATTERS (MAR 1996)

In accordance with FAR 52.209.5, complete the following certification regarding debarment suspension, proposed debarment and other responsibility matters and **return the completed certification with your solicitation response.** (Applicable to Federal Contracts and Grants >$30k)

(a) Certification Regarding Debarment Suspension, Proposed Debarment, and Other Responsibility Matters (Mar 1996 as amended)
- (1) The Offeror certifies, to the best of its knowledge and belief, that
- (i) The Offeror and/or any of its Principals
  - (A) **Are** ☐ **Are Not** ☐ presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency,
  - (B) **Have** ☐ **Have Not** ☐, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract, violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
  - (C) **Are** ☐ **Are Not** ☐ presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.
- (ii) The Offeror **Has** ☐ **Has Not** ☐, within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.
- (2) "Principals", for the purposes of this certification, means officers; directors, owners, partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment and similar positions). This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government the Contracting Officer may terminate the contract resulting from this solicitation for default. (End of Provision)

(NAME OF FIRM)   (ADDRESS, CITY, STATE, ZIP)

(SIGNATURE)   (DATE)   (PRINT OR TYPE - NAME AND TITLE)

6.4. CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991 as amended)

In accordance with FAR 52.203-11 and FAR 52.203-12 entitled "Limitation on Payments to Influence Certain Federal Transactions (Jun 1997 as amended), the following certification and disclosure regarding these FAR provisions are hereby incorporated and made a part of this bid/proposal solicitation requirement. (Applicable to Federal Grants and Contracts >$150k)

(a)   The definitions and prohibitions contained in the clause, at FAR 52.203.12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b)   The Offeror, **by signing its offer,** hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989

   (1)   No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

   (2)   If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the Offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

   (3)   He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $ 100,000 shall certify and disclose accordingly

(c)   Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

_____   _____
(NAME OF FIRM)   (STREET ADDRESS)

_____   _____
(SIGNATURE)   (MAILING ADDRESS)

_____   _____
(TYPED OR PRINTED NAME   (CITY, STATE, ZIP)

_____
(DATE)

6.5. ARIZONA BOARD OF REGENTS PERFORMANCE BOND

Pursuant to Board of Regents Policy
(Penalty of this bond must be 100% of the contract amount.)

KNOW ALL MEN BY THESE PRESENTS:

THAT, _____
(hereinafter called Principal), as Principal, and _____
_____, a corporation organized and existing under the laws of the State of
_____, with its principal office in the City of _____, (hereinafter called the
Surety), as Surety, are held and firmly bound unto the Arizona Board of Regents, (hereinafter called the Obligee) in
the amount of _____(Dollars) ($ _____) for the payment whereof, the said
Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and
severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____ day of
_____, 201__, to construct and complete a certain work described as
_____(insert project
title) which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length
herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall
faithfully perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during
the original term of said contract and any extension thereof, with or without notice to the Surety and during the life of
any guaranty required under the contract, and shall also perform and fulfill all the undertakings, covenants, terms,
conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made,
notice of which modifications to the Surety being hereby waived; then the above obligation shall be void, otherwise to
remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Arizona Board of Regents
Policy, and all liabilities on this bond shall be determined in accordance with provisions of this section, to the extent as
if copied at length herein.

The prevailing party in a suit on this bond, including any appeal thereof, shall recover as a part of his judgment
such reasonable attorneys' fees as may be fixed by a judge of the Court.

Witness our hands this _____ day of _____, 201__.

_____
Principal   Seal
By _____

Print Name _____

_____
Surety   Seal
By _____

Print Name _____

Address _____

_____

Telephone # _____

6.6. ARIZONA BOARD OF REGENTS PAYMENT BOND

Pursuant to Board of Regents Policy
(Penalty of this bond must be 100% of the contract amount)

KNOW ALL MEN BY THESE PRESENTS:

THAT, _____ (hereinafter called Principal), as Principal, and _____ _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____, (hereinafter called the Surety), as Surety, are held and firmly bound unto the Arizona Board of Regents, (hereinafter called the Obligee) in the amount of _____(Dollars) ($ _____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____ day of _____, 201__, to construct and complete a certain work described as _____(insert project title) which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall promptly pay all monies due to all persons supplying labor or materials to him or his subcontractors in the prosecution of the work provided for in said contract, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Arizona Board of Regents Policy, and all liabilities on this bond shall be determined in accordance with the provisions of this section, to the same extent as if copied at length herein.

The prevailing party in a suit on this bond, including any appeal thereof, shall recover as a part of this judgment such reasonable attorneys' fees as may be fixed by a judge of the Court.

Witness our hands this _____ day of_____, 201__.

_____
Principal   Seal
By _____

Print Name _____

_____
Surety   Seal
By _____

Print Name _____

Address _____

_____

Telephone # _____