Procurement and Contracting Services

Request for Proposals for High Performance Computing 2020 Refresh

Please mark all proposal submission Envelopes with the following information

Sealed RFP #L201904
Due on April 25th no later than 2:00 PM, MST
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For

REQUEST FOR PROPOSALS NO. L201904

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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 a new High Performance Computing Systems (HPC), associated Storage and Ethernet network and providing ongoing technical support and maintenance outlined in Section 5 of this request for proposal.

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 **University Demographics.** For information about the University of Arizona, please visit the University’s Internet web page at: [www.arizona.edu](http://www.arizona.edu). For specific demographic information, visit [http://factbook.arizona.edu](http://factbook.arizona.edu).
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.

03-18-19 Issuance of RFP
03-22-19 Pre-Proposal Conference Questions/Inquiries due no later than 4:00 PM/MST
03-27-19 Pre-Proposal Conference 9:00 AM MST
TBD Pre-Proposal Site Visit (upon request, see Section 3.5)
04-25-19 RFP is Due April 25, no later than 2:00 PM, MST
July 2019 Complete Evaluations
July 2019 Award Notification
TBD Receipt of Bonds and Insurance
Nov 2019 Delivery of Equipment
Dec 2019 Successful Completion of 28 Day Acceptance Period

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 Carissa Pasewark, at telephone # 520-626-8899, or facsimile # 520-626-1391, or email: carissap@email.arizona.edu

Date: March 27, 2019
Time: 9:00am MST
Place: The University of Arizona
Main Library
1510 E University Blvd
Room A313 and A314

Join Zoom Meeting https://arizona.zoom.us/j/726270866

One tap mobile
+16699006833,,726270866# US (San Jose)
+16468769923,,726270866# US (New York)

Dial by your location
+1 669 900 6833 US (San Jose)
+1 646 876 9923 US (New York)
Meeting ID: 726 270 866
Find your local number: https://zoom.us/u/aehyjf0FwX

Join by SIP
726270866@zoomcrc.com

Join by H.323
162.255.37.11 (US West)
162.255.36.11 (US East)
221.122.88.195 (China)
115.114.131.7 (India)
213.19.144.110 (EMEA)
202.177.207.158 (Australia)
209.9.211.110 (Hong Kong)
64.211.144.160 (Brazil)
69.174.57.160 (Canada)
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. An optional pre-proposal site visit can be arranged 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 Carissa Pasewark at telephone # 520-626-8899, or facsimile # 520-626-1391, or email: carissap@email.arizona.edu

Place: The University of Arizona Computer Center

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 Carissa Pasewark at telephone # 520-626-8899, facsimile # 520-626-1391, email address carissap@email.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 (email and facsimile are also acceptable), 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):

For U.S. Mail – Only (Please note that all U.S. Mail, including Express Mail, is delivered to the University’s Postal Services office and is then distributed to University Departments, including Procurement and Contracting Services, which may delay it by a day or more):

The University of Arizona
Procurement and Contracting Services
PO Box 210300
Tucson, Arizona 85721
Attn: Carissa Pasewark

For other methods of delivery (e.g. FedEx, UPS, etc.):

The University of Arizona
Procurement and Contracting Services
University Services Annex, Bldg. 300A
220 W. 6th Street, 5th Floor
Tucson, Arizona 85701
Attn: Carissa Pasewark

Telephone No. 520-626-8899
Facsimile No. 520-626-1391
Email Address: carissap@email.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 April 1st, 2019 by 4:00pm 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 April 1st, 2019 by 4:00pm MST.

- Inquiries about technical interpretations must be submitted in writing, and be received no later than April 1st, 2019 by 4:00pm 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:**

http://pacs.arizona.edu/RFP-BID_Opportunities

- **Vendors who want the addenda supplied to them in another form must notify Carissa Pasewark of that requirement. 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 April 1, 2019 by 4:00pm 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.

http://pacs.arizona.edu/RFP-BID_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.

- Original required sections from this RFP
- Any additional responses in corresponding sequence order
- Any additional supporting data
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 pen and ink. Vendors shall use pen and ink or typewriter in 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.** Not Applicable.

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 delivered sealed; be received and be date / time stamped at the University's Procurement and Contracting Services office reception desk, which is located on the 5th floor of the University Services Annex Building, 220 W. 6th Street, Tucson, AZ 85701, no later than **April 25th**, **2019 2:00 pm 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 delay's that may occur.

Proposals must be delivered sealed to:

For U.S. Mail – Only (please note that all U.S. Mail, including Express Mail, is delivered to the University’s Postal Services office and is then distributed to University Departments, including Procurement and Contracting Services, which may delay it by a day or more):

The University of Arizona  
Procurement and Contracting Services  
P.O. Box 210300  
Tucson, Arizona 85721  
Attn: Carissa Pasewark
For other methods of delivery (e.g. FedEx, UPS, etc.):

The University of Arizona
Procurement and Contracting Services
University Services Annex, Bldg. 300A
220 W. 6th Street, 5th Floor
Tucson, Arizona 85701
Attn: Carissa Pasewark

no later than April 25th, 2019 2:00pm MST. The University shall not accept proposals received by facsimile or email. 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 for purposes of identifying which vendors have responded. 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 Faxes and Emails Not Accepted. The University shall not accept proposals received by fax or email.

3.8.3 Number of Proposal Copies to be Furnished. Vendors are to submit two (2) original soft copies (electronic format) in either Microsoft Word or Adobe PDF (preferred) file on a CD, flash drive or other removable storage device. The vendor response Microsoft Excel spreadsheet must also be included as a soft copy in Microsoft Excel format (see requirements in section 5).

3.8.4 Binding and Marking. When submitting more than one (1) proposal, vendors shall ensure that units are clearly marked; for example, as "Original of Proposal One," "Copy One of Proposal One," "Original of Proposal Two," "Copy One of Proposal Two;" and so on.

3.8.5 Marking of Envelopes. Vendors shall ensure that the submittal envelope(s) clearly and conspicuously display the following identifying information in addition to any other information otherwise required for transmittal, and are sealed.

Sealed RFP #L201904
3.8.6 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.

3.8.7 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 envelope from the proposal and that it is clearly designated and conspicuously labeled as such.

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 enclosed in a separate envelope from the proposal and clearly designated and conspicuously labeled as proprietary, and the University concurs that the information is proprietary. The envelope 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.

3.9 EVALUATION PROCESS AND AWARD

3.9.1 Contractual Intent / Right to Terminate and Recomence 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
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**
This RFP contains three separate components; compute, storage, and Ethernet fabric. The following evaluation criteria will be evaluated separately as indicated in section 5.

**Compute Evaluation Criteria (see section 5.10)**

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

**Storage Evaluation Criteria (see section 5.11)**

- Initial cost per TB of capacity
- Initial cost per IOPS and initial cost per MB/s as measured through frontend presentation
- Buy-in scaling units, additional cost considerations of scaling, cost per unit
- Features and capabilities including management and monitoring as well as any additional aspects that bring added value to the proposal
- References and reputation in HPC
- Effective utilization of space and relative efficiency of power usage and heat production in terms of the specified capacity and performance

**Ethernet Fabric Evaluation Criteria (see section 5.12)**

- Cost per port for client ports and cost per port for any required uplinks
- Scalability and associated costs for proposed topology
- Effective use of space and relative efficiency in terms of provided connectivity
- References and reputation
• Features and capabilities including management and monitoring as well as any additional aspects that bring added value to the proposal

For general guidance purposes, Compute (5.10), Storage (5.11), and Ethernet Fabric (5.12) solutions should cost no more than:

• Compute: $2M
• Storage: $1M
• Ethernet Fabric: $300K

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 envelope from the proposal and that it is clearly designated and conspicuously labeled as such.
The envelope must also contain the reason(s) why the enclosed material is to be considered proprietary. At no 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, 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 [http://www.hr.arizona.edu/policy/classified-staff/408.0](http://www.hr.arizona.edu/policy/classified-staff/408.0). The Successful Vendor is expected to respect this tobacco free policy and fully comply with it.

4.16 **Export Control.** The Parties acknowledge that any goods, materials, or services specified in this solicitation may be subject to the export control laws of the United States, specifically including, but not limited to, the requirements of the International Traffic in Arms Regulations (ITAR), 22 C.F.R. 120 et seq., and the Export Administration Regulations, 15 C.F.R. 730-774. Vendor shall inform the designated Buyer of the export classification in their response. The University may elect not to receive certain export controlled items.

4.17 **No Boycott of Israel.** As required by ARS §§ 35-393 to 35-393.01, Entity certifies it is not currently engaged in a boycott of Israel and will not engage in a boycott of Israel during the term of this Contract. However, unless and until the District Court's injunction in Jordahl v. Brnovich et al., Case No. 3:17-cv-08263 (D. Ariz.) is stayed or lifted, the Anti-Israel Boycott Provision (A.R.S. 35-393.01 (A)) is unenforceable and the State will take no action to enforce it.

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

4.19 **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.

4.20 **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.

4.21 **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.

4.22 **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.
4.23 **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.

4.24 **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.

4.25 **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.
4.26 **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.

4.27 **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.

4.28 **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.

4.29 **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.

4.30 **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.

4.31 **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.

4.32 **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.

4.33 **Performance and / or Payment Bonds.** Not Applicable

4.34 **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.

4.35 **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.

4.36 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.

4.37 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.

4.38 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.

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

4.40 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.

4.41 Shipment Under Reservation Prohibited. Successful Vendor is not authorized to ship the goods under reservation and no tender of a bill of lading will operate as a tender of the goods.

4.42 Successful Vendor to Package Goods. Successful Vendor will package goods in accordance with good commercial practice. Each shipping container shall be clearly and permanently marked as follows: (a) Successful Vendor’s name and address; (b) Consignee’s name, address and purchase order number; (c) Container number and total number of containers, e.g. box 1 of 4 boxes and (d) the number of the container bearing the packing slip. Successful Vendor shall bear cost of packaging unless otherwise provided.

4.43 Termination

4.43.1 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.
4.43.2 **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.

4.43.3 **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.

4.43.4 **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.

4.43.5 **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.

4.43.6 **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.
4.43.7 **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.

4.44 **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.

4.45 **Title and Risk of Loss.** The title and risk of loss of the goods shall not pass to University until University actually receives the goods at the point or points of delivery.

4.46 **Warranties.** In addition to any implied warranties, Successful Vendor warrants that the goods furnished will conform to the specifications, drawings, and descriptions listed herein, and to the sample or samples furnished by the Successful Vendor, if any. In the event of a conflict between the specifications, drawings, and descriptions, the specifications shall govern.

4.47 **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.

4.48 **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).

4.49 **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.

4.50 **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, transmits or provides the service that controls or could impact the security of the cardholder data.

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.

4.51 **Information Security.** All systems containing University Data must be designed, managed, and operated in accordance with information security best practices and in compliance with all applicable federal and state laws, regulations and policies. To diminish information security threats, Licensor will (either directly or through its third party service providers) meet the following requirements:
4.51.1 **Access Control.** Control access to the University’s resources, including sensitive University Data, limiting access to legitimate business need based on an individual’s job-related assignment. Licensor will, or will cause the system administrator to, approve and track access to ensure proper usage and accountability, and Licensor will make such information available to the University for review, upon the University’s request.

4.51.2 **Incident Reporting.** Report information security incidents immediately to the University (including those that involve information disclosure incidents, unauthorized disclosure of University Data, network intrusions, successful virus attacks, unauthorized access or modifications, and threats and vulnerabilities).

4.51.3 **Off Shore.** Direct services under this Agreement will be performed within the borders of the United States. Any services that are described in this Agreement that directly serve the University and may involve access to secure or sensitive University Data or personal client 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.

4.51.4 **Patch Management.** Carry out updates and patch management for all systems and devices in a timely manner and to the satisfaction of the University. Updates and patch management must be deployed using an auditable process that can be reviewed by the University upon the University’s request.

4.51.5 **Encryption.** All systems and devices that store, process or transmit sensitive University Data must use an industry standard encryption protocol for data in transit and at rest.

4.51.6 **Data.** An explicit acknowledgement that the contract allows the contract partner access to confidential information.

- A stipulation that the confidential information will be held in strict confidence and accessed only for the explicit business purpose of the contract.
- A guarantee from the contract partner that it will ensure compliance with the protective conditions outlined in the contract.
- A guarantee from the contract partner that it will protect the confidential information it accesses according to commercially acceptable standards and no less rigorously than it protects its own customer’s confidential information.
- A provision allowing for the return or destruction of all confidential information received by the contract partner upon completion of the contract
- A stipulation allowing the entry of injunctive relief without posting bond in order to prevent or remedy breach of the confidentiality obligations of the contract.
- A stipulation that any violation of the contract’s protective conditions amounts to a material breach of contract and entitles the University to immediately terminate the contract without penalty.
- A provision allowing auditing of the contract partners’ compliance with the contract safeguard requirements.
A provision ensuring that the contract's protective requirements shall survive any termination of the agreement.

5. SCOPE OF WORK, SPECIFICATIONS, TECHNICAL REQUIREMENTS

5.1 Term of Agreement. Nov 4th, 2019 Delivery of Equipment to Data Center

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.
5.4.1 For general guidance purposes, Compute (5.10), Storage (5.11), and Ethernet Fabric (5.12) solutions should cost no more than: Compute: $2.15M; Storage: $1M; Ethernet Fabric: $150K

5.4.2 See each component defined below for detailed pricing information.

5.5 Method of Payment & Discount for Early Payment. The University’s preferred method of payment is via credit card. The University would issue a Purchase Order and upon receipt of goods or services, pay subsequent invoices by credit card.

Will you accept payment via credit card? Yes _____ No _____
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 5.10.7; Storage see 5.11.7; Ethernet Fabric see 5.12.8; 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 2020) with the goal to match, the capacity and capabilities provided by the current generation of UA HPC systems (HPC2015). HPC 2015 systems will continue to be operated and are described at http://rc.arizona.edu/hpc-htc/computing-systems.

HPC 2020 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.

The combination of the HPC 2015 and HPC 2020 systems will be used to address our current and anticipated future diverse computational needs of the UA researchers from a wide variety of disciplines for at least the next five to seven years. We will take full advantage of the existing specialized hardware to provide access to parallel shared memory.
applications, as well as parallel and high throughput workloads and design the new systems to provide increased distributed memory job sizes, address “extreme” memory applications (1-3TB), and potentially include Hadoop, Singularity, custom environments (virtual or provisioned on demand), and whatever comes next.

5.8 Scope
Details of required, preferred and optional components of proposals are listed in subsequent sections.

5.8.1 The University of Arizona (UA) is inviting proposals to provide our next generation High Performance Computing environment comprised of the following components:

5.8.1.1 Respondent must propose at least one of the following components:

5.8.1.1.1 Compute Systems - defined in section 5.10
5.8.1.1.2 Storage Systems - defined in section 5.11
5.8.1.1.3 Ethernet Fabric - defined in section 5.12
5.8.1.1.4 Respondents may form partnerships and submit proposals for fully integrated systems with a single point of contact for overall system responsibility, maintenance and support.

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.

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 passed 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 a tiered storage system (home, backup, archive, etc.), with hierarchical storage management (HSM).

5.8.2.3 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 Research Data Center (RDC) was designed in collaboration with the High Performance Research Computing Committee, the University Chief Information Officer and the Senior Vice President for Research to provide a climate controlled, secure, high density data center facility for the central research systems. The facility is 1,200 ft$^2$ of raised floor space for high density racks. The on-site 24x7 Operations staff provides facility oversight and hands-on emergency hardware assistance. Additional raised floor space is available at the same location in the Enterprise Data Center. Responses for the following must be entered on the specifications response spreadsheet in Appendix C.

5.9.1 **Floor Loading**

The RDC raised floor is 18" high supporting 1250 lbs/ft$^2$ loading on concrete filled tiles.

5.9.2 **Power**

The RDC is designed for high density racks of up to 30kW with overhead power distribution for single or 3-phase power connections. Backup power is provided by both UPS and generator. Preferred connections are single-phase 30 amps with L6-30P connectors, however 3-phase 30 amps solutions are acceptable.

- **5.9.2.1** Must specify the maximum power usage per rack (kVA).
- **5.9.2.2** Must specify the average power usage per rack (kVA).
- **5.9.2.3** Must specify the power plug types (i.e. L6-30P).
- **5.9.2.4** Must specify the number of power plugs per rack.

5.9.3 **Energy Efficiency**

Preference will be given to proposals with energy conservation features.

- **5.9.3.1** Specify energy efficiency features such as power management to reduce energy costs, and reduced heat generation.

5.9.4 **Footprint**

Data center space is limited, as such rack footprint will be considered when reviewing these proposals. The maximum footprint for all the hardware procured through this RFP must not exceed 8 standard (19") or Open Compute Project (OCP) racks, no more than 48U and no taller than 90". Computing environments must not exceed 6 racks. Storage environments must not exceed 2 racks.

- **5.9.4.1** Must specify the total number of racks in proposed compute solution.
- **5.9.4.2** Must specify the total number of racks in proposed storage solution.
- **5.9.4.3** Must specify the footprint required for all the proposed compute racks. Do not include space required to access the racks.
- **5.9.4.4** Must specify the footprint required for all the proposed storage racks. Do not include space required to access the racks.
- **5.9.4.5** Must specify the height of the racks in inches and number of rack units

5.9.5 **Density**
Data center space is limited, as such rack density will be considered when reviewing these proposals. Preference will be given to proposals based on rack density.

5.9.5.1 Must specify the density of the compute solution cores per rack unit (RU). The compute solution must meet a minimum density of 40 CPU cores per RU.

5.9.5.2 Must specify the formatted density of the storage solution in TB/rack and TB per minimum unit of expansion.

5.9.6 Cooling

The RDC cooling is provided by dual 35-ton high efficiency Computer Room Air Handling Units and under floor chilled water. Existing systems utilize rear door heat exchangers connected to under floor chilled water and condensate manifolds. Chilled water is provided by the UA campus chilled water loop at an average of 47°F.

5.9.6.1 Rear Door Cooling
Proposed compute solutions must include rear door passive or active heat exchangers compatible with RDC chilled water cooling facilities. Specify on response sheet in Appendix C if the rear door heat exchangers are passive or active. Note that the proposed solution should be temperature neutral at low load but does not have to be 100% temperature neutral at max capacity.

5.9.6.2 Cooling Distribution Unit (CDU)
There is no CDU in the facility. Each rack connects directly to the under floor chilled water manifold. The proposed system must be capable of direct connection to the University chilled water as described in section 5.9.6.3.

5.9.6.3 Chilled Water
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 the hoses to the rear door heat exchangers being proposed. Specify on the Environmental Response Sheet in Appendix C the fitting types, number of chilled water hoses per rack, and the length of the hoses.

5.9.6.4 Condensate
Respondents must specify how the proposed heat exchangers handle condensate. There is an under-floor condensate manifold 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 on the Environmental Response Sheet in Appendix C if condensate hoses are included, the fitting type(s) and length of hoses.

5.9.6.5 Air Flow
Proposed hardware must have front to back air flow.
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 G). Must specify the proposed solutions will fit within these dimensions. If necessary, equipment can be uncrated on the loading dock.

5.10 **Compute Systems Specifications**
Respondents to the Compute section must submit a proposal for all of the components in this section.

5.10.1 **Pricing**
Respondent should indicate the ability to hold pricing not to exceed proposed prices, lower if possible, for a period of 1 year or longer following award.

All pricing information must be entered on the provided Pricing Response Sheet in Appendix D.

5.10.1.1 Specify the price of the proposed compute system.

5.10.1.2 Specify the price per scalable unit for a standard node (see 5.10.2.3.4) to allow for future expansion including coterminated maintenance with the original system purchase.

5.10.1.3 Specify the price per scalable unit (see 5.10.2.3.5) for Large Memory workload in the proposed configuration and specify the price per scalable unit to allow for future expansion including coterminated maintenance with the original system purchase.

5.10.1.4 Specify the price per scalable unit (see 5.10.2.3.6) for Nvidia V100 GPU workload in the proposed configuration and specify the price per scalable unit to allow for future expansion including coterminated maintenance with the original system purchase.

5.10.1.5 Specify the price of an empty rack with water cooled doors and power distribution units including coterminated maintenance with the original system purchase.

5.10.1.6 Specify the cost for each length of cable used to build the system. Include the count and length of each cable.

5.10.1.7 Specify the pricing of any software proposed (per seat, site license, etc) including coterminated maintenance with the original system purchase.

5.10.2 **Compute Node Specifications**
For all systems respondent must provide all new hardware that complies with the following criteria: used or refurbished hardware is not acceptable. Responses for the following must be entered on the specifications response spreadsheet in Appendix C.

5.10.2.1 **Operating System**
Respondent must support compute nodes running CentOS Linux. Specify operating system and version in the Specifications Response Sheet in Appendix C.

5.10.2.2 Processors must meet the following requirements

5.10.2.2.1 64-bit X86 CPUs with a minimum base frequency of 2.3GHz.

5.10.2.2.2 All proposed compute systems must include a minimum of 5GB/core of uniformly sized ECC memory DIMMs.

5.10.2.2.3 State the following on the Specifications response sheet in Appendix C:

- Processor model
- Frequency (GHz)
- Cache (L1/L2/L3)
- Instruction Set
- Number of cores
- Performance (RPeak in GFLOPS)
- TDP (Thermal Design Power) in Watts

5.10.2.3 Compute nodes

5.10.2.3.1 All proposed processors must be binary compatible.

5.10.2.3.2 State total number of physical cores in the proposed system.

5.10.2.3.3 Must include detailed configuration of all proposed node types.

5.10.2.3.4 Respondents must define the scalable unit for the standard node in the proposed configuration on the specifications response sheet in Appendix C to include the following:

- System model number
- Memory (GB)
- Local disk (TB)
- Network interface cards (model)
- Specify if an enclosure is required
- Specify the number of standard nodes in a scalable unit
- Specify the number of rack units required for the scalable unit

5.10.2.3.5 Respondents must define the scalable unit for a Large Memory workload. The proposed system must support large memory jobs utilizing up to 3TB of contiguous memory via a dedicated hardware configuration. Define the scalable unit on the Compute Specifications Response Sheet in Appendix C to include the following:

- System model number
5.10.2.3.5.2 Memory (GB)
5.10.2.3.5.3 Local disk (TB)
5.10.2.3.5.4 Network interface cards (model)
5.10.2.3.5.5 Specify the number of rack units required for the scalable unit

5.10.2.3.6 Respondents must define the scalable unit for a Nvidia V100 GPU node in the proposed configuration on the specifications response sheet in Appendix C to include the following:

5.10.2.3.6.1 System model number
5.10.2.3.6.2 Memory (GB)
5.10.2.3.6.3 Local disk (TB)
5.10.2.3.6.4 Network interface cards (model)
5.10.2.3.6.5 Specify if an enclosure is required
5.10.2.3.6.6 Specify the number of standard nodes in a scalable unit
5.10.2.3.6.7 Specify the number of rack units required for the scalable unit
5.10.2.3.6.8 Specify T4 or T8 GPU alternative costs

5.10.2.4 Network Interfaces
5.10.2.4.1 Must be 25 Gb/s capable of running the Ethernet protocol.
5.10.2.4.2 Minimum of 2 ports per interface card.
5.10.2.4.3 All 25 Gb/s ports must support RoCE.
5.10.2.4.4 Must include a 1Gb/s capable RJ-45 interface that supports PXE.

5.10.2.5 Local Node Storage
All compute nodes must include a minimum of 2TB usable uncompressed local SSD based disk (±10%).

5.10.2.6 Utility Nodes
Submissions must include all necessary nodes for the operation of the proposed configuration (head nodes, etc.). These nodes are not to be included in the performance benchmarks.
5.10.2.7 Rack Infrastructure

5.10.2.7.1 All racks must meet environmental specifications as defined in 5.9.

5.10.2.7.2 All proposals must include all necessary rack infrastructure to house and power all compute nodes and vendor provided node-to-node communications switching.

5.10.2.7.3 All respondents must further reserve no less than 6U of space per rack for customer use. Respondents proposing Ethernet Fabric as defined in section 5.12 can utilize part of this reserved space for Ethernet infrastructure. If the solution uses some of this space specify how many RUs are required per rack and what their purpose is.

5.10.2.7.4 Specify pricing for rack and all proposed rack components on pricing response sheet in Appendix D.

5.10.2.7.5 Respondents must include a rack diagram of the complete system layout including interconnects, all external connections, networking, power, and chilled water.

5.10.3 Compute System Benchmarks

Benchmarks, Rpeak (theoretical) and Rmax (estimated or actual) must be provided as described below. Benchmarks may be reported as actual or estimated for the minimum scalable unit for the standard node proposed in section 5.10.2.3.4. These benchmarks must be run with all proposed hardware components online and with symmetric multithreading disabled.

All benchmarks must be run on a single standard node as defined in 5.10.2.3.4.

Reported benchmarks must be confirmed during acceptance testing as defined in section 5.10.5.

All benchmarks must be reported on the Benchmark Response Sheet in Appendix F.

5.10.3.1 Required benchmark is HPL (High Performance LINPACK) as run for TOP500 List inclusion. Respondents must provide results for each of the following workloads on the Benchmark Response Sheet in Appendix F.

All benchmarks must be run without symmetric multithreading.

TOP500 Linpack Benchmark:
http://www.top500.org/project/linpack/

HPL – High Performance Linpack Benchmark:
http://www.netlib.org/benchmark/hpl/

5.10.3.2 The selected respondent(s) must provide a copy of all final benchmarks results and associated files or programs (i.e. the tuned codes, etc.) achieved during the acceptance period (see section 5.10.5).
5.10.4 Compute System Acceptance Testing
Acceptance tests will be conducted following the date installation is complete. During acceptance testing, benchmarks will be run and upon completion of the benchmarks, the University System Administrators will be installing and testing the batch scheduler, applications, libraries, tools, etc. and allowing initial users to access the system to run test jobs.

5.10.4.1 Uptime Acceptance Test
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.

Acceptance test failures are calculated with the following formula. Due to the expected number of components in the system we have chosen to simplify the equation by assigning a standard 24 hour outage time to any hardware failure that impacts node availability. This is to simulate standard next business day support. For non-standard outages longer than 24 hours outage time will be calculated as the wall clock time.

Standard Outages are any outages less than 24 hours; will be counted as 1 day of outage time.

Non-Standard Outages are any outages greater than 24 hours; will be rounded up to nearest number of days.

Total Outages (TO) is the sum of Standard and Non-Standard Outages measured in days.

Total Time (TT) = (Total # of nodes) x 28 days

Acceptable Availability (AA) >= TT x 99.5%

TO / TT =< 0.5%

During the acceptance period respondents must report all failures, root cause, and time for resolutions.

All the required and proposed software must be installed and licensed prior to the acceptance test start. During the Acceptance Test the respondent must run the benchmarks as specified in section 5.10.3. The benchmarks must duplicate or improve on the results submitted by the respondent in the RFP response as specified in the compute benchmark section 5.10.3.

5.10.4.2 Acceptance Testing Period Remediation
If acceptance testing has not been successfully completed after 35 days there will be liquidated damages of $500.00 a day assessed until remediation is performed to the UA's satisfaction. If, after an agreed upon number of additional days, acceptance testing (remediation) has not been
successfully completed to the UA’s satisfaction, 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.

5.10.4.3 Benchmark Testing Remediation
If specified benchmark results as defined in section 5.10.3 are not achieved as indicated in the proposal, respondent must provide remediation to achieve the price/performance metric derived from the accepted proposal subject to University approval of proposed remediation.

If specified benchmark results as defined in section 5.10.3 are not achieved as indicated in the proposal after 35 days there will be liquidated damages of $500.00 a day assessed until results are performed to the UAs satisfaction.

If, after an agreed upon number of additional days, the required benchmark results have not been successfully achieved to the UA’s satisfaction, the equipment may be returned to the respondent at the respondent’s expense and a new vendor selected.

5.10.5 Compute System Installation
Inclusion of the following information in the proposal must be entered on the specifications response spreadsheet in Appendix C.

5.10.5.1 All responses must include all costs for installation services including but not limited to unboxing, assembly, racking, powering and functional testing. All pricing information must be entered on the provided pricing document in Appendix D.

5.10.5.2 All responses must include service costs for cabling, configuration and integration of all proposed hardware including cable runs and labeling, fabric implementation including all necessary switch configuration, and full functional integration including full connectivity verification and acceptance testing. All pricing information must be entered on the provided pricing document in Appendix D.
5.10.6 Compute System 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 specifications response spreadsheet in Appendix C. All pricing information must be entered on the provided pricing document in Appendix D.

5.10.6.1 Technical Support
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)

5.10.6.1.1 Web-based service request site.
5.10.6.1.2 Next-business-day parts replacement.
5.10.6.1.3 24x7 toll-free phone and online support.
5.10.6.1.4 Access to knowledge bases, FAQs, Known Issues, patches.
5.10.6.1.5 Documentation for all proposed hardware and software, tutorials, whitepapers, security bulletins, etc.

5.10.6.2 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 year.

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

5.10.6.4 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. Specify the total number of included training units. Include detailed descriptions and pricing for the following:

5.10.6.4.1 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).

5.10.6.4.2 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.

5.10.6.4.3 Include URLs for the all online training resources.

5.10.7 References
5.10.7.1 Respondent must provide three (3) customer references, from comparable U.S. educational or research institutions with systems of similar size and capability as proposed in this RFP.

5.10.7.2 All reference systems and contacts must not require security clearance in order to obtain information about the systems configuration, reliability and performance or the respondents support capabilities and performance.

5.10.7.3 Respondent must complete the contact information response sheet located in Appendix E to include the following:

- 5.10.7.3.1 Organization name
- 5.10.7.3.2 Name(s)
- 5.10.7.3.3 Title(s)
- 5.10.7.3.4 Telephone number(s)
- 5.10.7.3.5 Email address(es)

5.10.7.4 All references should include a basic description of the respondent’s HPC System(s) installed at each reference site (number of nodes, number of CPU cores, approximate memory per core, TOP500 HPC Linpack Rmax result). See contact information response sheet in Appendix E.

5.10.8 Compute System Evaluation Criteria
See Section 3.9.8

5.11 Storage Specifications

Respondents to the Storage section must submit a proposal for all of the components in this section. Responses must be entered on the specifications response spreadsheet in Appendix C.

The storage solution will service both the compute cluster specified in section 5.10 as well as the previous generation HPC systems identified in 5.7. We are looking for scale out solutions that can expand both capacity and performance as the number of compute nodes expands.

5.11.1 Specifications

Respondents must provide proposals for storage systems that comply with the environmental constraints in section 5.9, and meet the following criteria:

- 5.11.1.1 Proposals must specify a sustained throughput of at least 200k mixed IOPS at a 4:1 read:write ratio utilizing 4k blocks with a peak rate of at least 400k IOPS.

- 5.11.1.2 Proposals must specify the aggregate bandwidth and must provide at least 4GB/s sustained aggregate bandwidth at a 4:1 read:write ratio utilizing 4k blocks for the proposed solution.

- 5.11.1.3 Proposals must specify the storage fabric bandwidth and it must be no less than 400Gb/s.

- 5.11.1.4 Systems must support connectivity via multiple Ethernet links at either 40Gb/s or 100Gb/s.
5.11.1.5 Systems must support extensibility to add capacity and performance as needed.

5.11.1.6 Systems must provide an initial usable uncompressed storage configuration of at least 2PB with expansion capabilities to no less than 10PB of online uncompressed storage capacity.

5.11.1.7 Systems must provide all hardware and software components necessary to present all provided storage to all clients simultaneously for reading and writing.

5.11.1.8 Systems must provide high-availability capabilities to tolerate the failure of individual components without compromising data availability or integrity including but not limited to disks, controllers, interface cards, power supplies, etc. All components must be replaceable online with a non-disruptive procedure.

5.11.1.9 Systems must provide management and monitoring software that provides all necessary capabilities to administer / operate the system including storage provisioning, health monitoring/alerting and performance statistics collection. Preference will be given to systems that support integration with existing monitoring and collection systems including Zabbix and StatSeeker via one or more of native modules, SNMP connectivity or SMI-S integration.

5.11.1.10 Systems must support quotas. Please specify support for user, group, and/or path based quotas.

5.11.1.11 Acceptable solutions include but are not limited to parallel filesystem implementations (Lustre, GPFS, BeeGFS) or high performance NFS implementations (pNFS, NFS over RDMA, etc).

5.11.1.12 Solutions should leverage native OS support for clients where possible.

5.11.1.13 Respondents should indicate explicitly if their proposals leverage or have the capability to leverage automated and/or policy-based tiering/relocation of stored data, the operational method of those features including policy capabilities and tier options, and whether or not those features support cloud-hosted tiers and/or targets.

5.11.1.14 Proposed systems may support local snapshots and/or remote replication. Specify any such features that are in the proposed solution.

5.11.1.15 Proposed system must support a minimum of 1000 simultaneous clients.
5.11.2 Pricing
Prices must be valid for no less than 1 year. All pricing information must be entered on the provided pricing document in Appendix D.

5.11.2.1 Specify the price of the proposed storage system.

5.11.2.2 Define scalable units for storage expansion of all proposed storage systems and specify the price per scalable unit including coterminated maintenance with the original storage purchase.

5.11.2.3 Specify the price of an empty rack and power distribution units including coterminated maintenance with the original storage purchase.

5.11.2.4 Specify the price for any/all accessories or licenses required to expand storage capacity including coterminated maintenance with the original storage purchase.

5.11.2.5 Specify the pricing of any software proposed (per seat) including coterminated maintenance with the original storage purchase.

5.11.3 Storage Metrics
Respondents must provide a full descriptions of the following

5.11.3.1 Expected performance metrics for proposed systems including projected changes for expected expansions including:

5.11.3.1.1 IOPS for each of 100% read, 100% write, 4:1 read/write split using 4k blocks. Proposals featuring caching solutions should provide both cached and non-cached metrics.

5.11.3.1.2 Bandwidth in GB/s for each of 100% read, 100% write, 4:1 read/write split using 4k blocks. Proposals featuring caching solutions should provide both cached and non-cached metrics.

5.11.3.1.3 Full description of reliability, availability and serviceability (RAS).

5.11.3.1.4 All proposals are subject to environmental constraints as defined in section 5.9

5.11.4 Storage Acceptance Testing

Acceptance tests will be conducted following the date installation is complete. During Acceptance testing, benchmarks will be run and upon completion of the benchmarks UA System Administrators will be provisioning storage and allowing initial users to access the system to run jobs and exercise the storage.

5.11.4.1 Storage Uptime Acceptance Test

The storage system must pass the 28-day uptime acceptance test by achieving 100% uptime for 28 consecutive days within 35 days of the start of the acceptance test.
Uptime is defined as all storage space must be available for reading and writing. Failures of redundant components are acceptable but need to be resolved during the test.

During the acceptance period respondents must report all failures, root cause, and time for resolution.

All the required and promised software must be installed and licensed prior to the start of the acceptance test.

5.11.4.2 Performance Acceptance Tests
The storage system must meet the specified performance parameters in section 5.11 and compliance must be demonstrated during the acceptance test.

5.11.4.3 Remediation
If acceptance testing has not been successfully completed after 35 days, or Performance Acceptance Testing results do not meet or exceed the criteria as listed in section 5.7.1.2, there will be liquidated damages of $500.00 a day assessed until remediation is performed to the satisfaction of the University.

If, after an agreed upon number of additional days, acceptance testing (remediation) has not been successfully completed to the UA’s satisfaction, 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.

5.11.5 Storage Installation Services

5.11.5.1 All responses must include all costs for installation services including unboxing, racking, powering and functional testing. All pricing information must be entered on the provided pricing document in Appendix D.

5.11.5.2 All responses must include service costs for cabling, configuration and integration of all proposed hardware including cable runs and labeling, fabric implementation including all necessary switch configuration, and full functional integration including full connectivity verification and acceptance testing.

5.11.6 Storage Technical Support, Maintenance, Documentation, and Training

Respondent must provide ongoing technical support, maintenance, documentation and training for the proposed storage components. All pricing information must be entered on the provided pricing document in Appendix D.

5.11.6.1 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):

5.11.6.1.1 Web-based service request site.
5.11.6.1.2 Next-business-day parts replacement.
5.11.6.1.3 24x7 toll-free phone and online support.
5.11.6.1.4 Access to knowledge bases, FAQs, Known Issues, patches.
5.11.6.1.5 Documentation for all proposed hardware and software, tutorials, whitepapers, security bulletins, etc.

5.11.6.2 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 year.

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

5.11.6.4 Training
Respondent should provide Operations and Administration training options. Specify the total number of included training units. Include detailed descriptions and pricing for the following:

5.11.6.4.1 Support staff training customized and specific to the maintenance and operation of the proposed storage.

5.11.6.4.2 Support staff training and certification for self-maintained hardware repair (remove and replace).

5.11.7 References

5.11.7.1 Respondent must provide three (3) customer references, from comparable U.S. educational or research institutions with systems of similar size and capability as proposed in this RFP.

5.11.7.2 All reference systems and contacts must not require security clearance in order to obtain information about the systems configuration, reliability and performance or the respondents support capabilities and performance.
5.11.7.3 Respondent must complete the contact information response sheet located in Appendix E to include the following:

5.11.7.3.1 Organization Name
5.11.7.3.2 Name(s)
5.11.7.3.3 Title(s)
5.11.7.3.4 Telephone number(s)
5.11.7.3.5 Email address(es)

5.11.7.4 All references should include a basic description of the respondent’s HPC Storage System(s) installed at each reference site including approximate capacity and workload. See contact information reference sheet in Appendix E.

5.11.8 Rack Infrastructure

5.11.8.1 All racks must meet environmental specifications as defined in 5.9. with the exception that we do not require water cooling.

5.11.8.2 All proposals must include all necessary rack infrastructure to house and power all compute nodes and node-to-node communications switching.

5.11.8.3 Respondents must include a rack diagram of the complete system layout including interconnects, all external connections, networking, power, and chilled water (if included).

5.11.9 Storage Evaluation Criteria
See Section 3.9.8

5.12 Ethernet Fabric
Respondents must submit a proposal for the Ethernet Fabric as a separate component. All responses must be compatible with section 5.10.3.4 and 5.11.1.1. Responses must be entered on the specifications response spreadsheet in Appendix C.

5.12.1 Overview and Specifications
Exact port/switch counts will depend on the awarding of compute and storage sections and will be delivered as part of best-and-final requests. For the purposes of this section, responses must address the following:

5.12.1.1 Initial configuration that includes 300 client connections at 25 Gb/s, 8 storage connections at 100 Gb/s and a minimum of four (4) connections to existing campus fabric at 40 Gb/s. Respondent must include a diagram of the proposed configuration. Specify the total number of rack units for this configuration on the specification response sheet in Appendix C. See example diagram in Appendix B.

5.12.1.2 Expansion configuration showing all hardware necessary to expand the initial configuration as described in 5.12.1.1 to 600 client connections at 25 Gb/s and 16 storage connections at 100 Gb/s and a minimum of four (4) connections to existing campus fabric at 40 Gb/s. Respondent must include a diagram of the proposed configuration. Specify the total number of rack units for this configuration on the specifications response sheet in Appendix C. See example diagram in Appendix B.
5.12.2 Ethernet Fabric Switching

5.12.2.1 Switches must be manageable via a command-line interface comparable to Cisco IOS/NX-OS which is remotely accessible via SSH. Switches must present a read/write SNMP interface for management and monitoring. Switches must support TACACS/RADIUS for role-based authentication and authorization with ActiveDirectory support. Respondents may include a central switch management solution for aggregated management of all switching hardware if applicable.

5.12.2.2 Switches may be distributed throughout the compute and storage systems or included in a unified rack. See section 5.9 for information about rack size and power requirements.

5.12.2.3 Switches must feature 25 Gb/s ports for client access, 100 Gb/s ports for connection to storage platforms, and 40Gb/s-compatible connections to existing campus ethernet infrastructure. All switching hardware must be internally non-blocking and feature client-to-uplink bandwidth ratios of 3:1 or better.

5.12.2.4 Switching must support the following Data Center Bridging extensions for the purposes of supporting RDMA over Converged Ethernet (RoCE), version 2.

5.12.2.4.1 Priority-based Flow Control (PFC) 802.1Qbb
5.12.2.4.2 Enhanced Transmission Selection (ETS) 802.1Qaz
5.12.2.4.3 Data Center Bridging eXchange (DCBX)

5.12.3 Ethernet Fabric Cabling
All responses must include all necessary cabling to connect all clients and storage to access switching, all access switching to aggregation switching and all aggregation switching to campus networking fabric. Exact cable counts will be determined as part of best-and-final requests. See Network Fabric Diagram (Ethernet) in Appendix B.

5.12.4 Pricing
Prices must be valid for no less than 1 year. All pricing information must be entered on the provided pricing document in Appendix D.

5.12.4.1 Specify the price of the proposed Ethernet fabric meeting the requirements outlined in section 5.12.1.1

5.12.4.1.1 Define scalable units for fabric expansion, e.g. spine and/or leaf rackable switches, line cards for chassis solutions.

5.12.4.1.2 Specify the price per scalable unit including coterminated maintenance with the original fabric purchase.

5.12.4.1.3 Specify the price for any/all accessories required to expand the fabric, e.g. optics, cabling. All accessories must include coterminated maintenance with the original fabric purchase as required.
5.12.4.1.4 Specify the pricing of any software proposed (per seat) including coterminal maintenance with the original fabric purchase.

5.12.4.2 Specify the price of the proposed Ethernet fabric expansion as outlined in section 5.12.1.2

5.12.4.2.1 Unit costs for scalable units as defined in section 5.12.4.1.1.

5.12.4.2.2 Unit costs for any/all accessories required to expand the fabric including coterminal maintenance with the original fabric purchase.

5.12.4.2.3 Specify the pricing of any required software license extension (per seat) including coterminal maintenance with the original fabric purchase.

5.12.5 Ethernet Fabric Installation Services

5.12.5.1 All responses must include all costs for installation services including unboxing, racking, powering and functional testing. All pricing information must be entered on the provided pricing response sheet in Appendix D.

5.12.5.2 All responses must include service costs for cabling, configuration and integration of all proposed hardware including cable runs and labeling, fabric implementation including all necessary switch configuration, and full functional integration including full connectivity verification and acceptance testing as defined in section 5.12.6. All pricing information must be entered on the provided pricing response sheet in Appendix D.

5.12.6 Ethernet Fabric Acceptance Testing

Acceptance tests will be conducted following the date installation is complete. Note following benchmark completion the System Administrators will be installing and testing the batch scheduler, applications, libraries, tools, etc. and allowing initial users to access the system.

5.12.6.1 Uptime Acceptance Test

All fabric components must pass the 28-day acceptance test by providing 100% uptime for 28 consecutive days within 35 days of the start of the acceptance test.

Uptime is defined as all fabric components must be available to connect nodes and transfer data. Failures of redundant components are acceptable but need to be resolved during the test. During the acceptance period respondents must report all failures, root cause, and time for resolution.

During the Acceptance Test, storage metrics and compute benchmarks will be run to evaluate sections 5.10.4 and 5.11.3.

5.12.6.2 Remediation

If Acceptance Uptime Testing has not been successfully completed after 35 days, there will be liquidated damages of $500.00 a day assessed until remediation is performed to the satisfaction of the University.
If, after an agreed upon number of additional days, acceptance testing (remediation) has not been successfully completed to the UA’s satisfaction, 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.

**5.12.7 Ethernet Fabric Technical Support, Maintenance, Documentation, and Training**

Respondent must provide ongoing technical support, maintenance, documentation and training for the proposed fabric components. All pricing information must be entered on the provided pricing response sheet in Appendix D.

**5.12.7.1** Respondent awarded the contract must include a fabric diagram including all connectivity based on the configuration determined during best and final.

**5.12.7.2** 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):

- **5.12.7.2.1** Web-based service request site.
- **5.12.7.2.2** Next-business-day parts replacement.
- **5.12.7.2.3** 24x7 toll-free phone and online support.
- **5.12.7.2.4** Access to knowledge bases, FAQs, Known Issues, patches.
- **5.12.7.2.5** Documentation for all proposed hardware and software, tutorials, whitepapers, security bulletins, etc.

**5.12.7.3** 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.

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

**5.12.7.5 Training**

Respondent should provide Operations and Administration training options. Specify the total number of included training units. Include detailed descriptions and pricing for the following:

- **5.12.7.5.1** Support staff training customized and specific to the maintenance and operation of the proposed network fabric.
- **5.12.7.5.2** Support staff training and certification for self-maintained hardware repair (remove and replace).

**5.12.8 References**
5.12.8.1 Respondent must provide **three (3) customer** references, from comparable U.S. educational or research institutions with fabrics of similar size and capability as proposed in this RFP.

5.12.8.2 All reference systems and contacts must not require security clearance in order to obtain information about the systems configuration, reliability and performance or the respondents support capabilities and performance.

Respondent must complete the contact information response sheet located in Appendix E to include the following:

- **5.12.8.2.1** Organization Name
- **5.12.8.2.2** Name(s)
- **5.12.8.2.3** Title(s)
- **5.12.8.2.4** Telephone number(s)
- **5.12.8.2.5** Email address(es)
- **5.12.8.2.6** All references should include a basic description of the respondent’s networking implementation at each reference site to include total port count and approximate utilization. See contact information response sheet in Appendix E.

5.12.9 **Ethernet Fabric Evaluation Criteria**

See Section 3.9.8
Appendix A: Glossary

**Standard Node** – a single node configuration that is used for each compute workload
Appendix B: Network Fabric Diagram

Example Network Fabric Diagram
Appendix C: Specification Response Sheet

See L201904 HPC Vendor Response Excel file
Appendix D: Pricing Response Sheet

See L201904 HPC Vendor Response Excel file
Appendix E: Contact Information Response Sheet

See L201904 HPC Vendor Response Excel file
Appendix F: Benchmark Response Sheet

See L201904 HPC Vendor Response Excel file
Appendix G: 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 Carissa Pasewark (carissap@email.arizona.edu).

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

6.1 Certification of Proposal

6.2 Legal Workers Certification *(Required for all Contracts for: Services; Construction or Maintenance of Structure, Building or Transportation Facility; or Improvements to Real Property costing $100K and over)*

6.3 Certification Regarding Debarment, Suspension, Proposed Debarment and other Responsibility Matters *(Mar 1996 as amended)* *(Applicable to Federal Grants and Contracts >$30k)*

6.4 Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions *(Apr 1991 as amended)* *(Applicable to Federal Grants and Contracts >$150k)*
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 # L201904, 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: ________

Telephone #: __________________ Facsimile #: __________________ F.E.I.N: ____________
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 210300Tucson, 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)