

THIS IS NOT AN ORDER

REQUEST FOR BIDS/PROPOSALS COVERSHEET THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Procurement and Contract Services

118 College Drive #5003, Hattiesburg, Mississippi 39406-0001

Date: April 25, 2023

RFP No. 23-30

THE UNIVERSITY OF SOUTHERN MISSISSIPPI is considering the purchase of the following item(s). We ask that you submit your bid and retain one copy for your files. Right is reserved to accept or reject any part of your bid. Your quotation will be given consideration if received in Bond Hall, Room 214 on or before:

2:00 p.m. CST

May 23, 2023

Buyer: Amber Floyd

				TOTAL NET PRICE			
ITEM	QUANTITY		UNIT PRICE	TOTAL NET PRICE			
		DESCRIPTION					
		RFP 23-30					
		HPC Magnolia Expansion					
		RFx: 3160005829					
		PROPOSAL MUST BE RETURNED TO THE UNIVERSITY IN ACCORDANCE WITH THE SPECIFICATIONS. RFP NUMBER AND					
		DATE OF BID OPENING MUST BE SHOWN ON THE OUTSIDE OF					
		THE ENVELOPE IF USING THAT METHOD.		1			
We quote you as above-F.O.B. The University of Southern Mississippi. Shipment can be made in days from receipt of order. DATE TERMS							
Return quotation to Procurement Services at above address.							

Address: ______
City/State/Zip:_____

TERMS - Bidder should state terms of sale. Our terms are 2% ten days, net 45 days. These terms will apply per Mississippi law.

AWARDING CONTRACT - Cash terms will not be used as a basis for awarding contracts; however, the University will accept cash discounts when earned.

Name: ______

Company:

THE UNIVERSITY OF SOUTHERN MISSISSIPPI PROCUREMENT SERVICES 118 COLLEGE DRIVE #5003 HATTIESBURG, MS 39406-0001

GENERAL TERMS. CONDITIONS AND INSTRUCTIONS FOR BIDS/PROPOSALS

- 1.) Failure to examine any drawings, specifications, and instructions will be at bidder's risk.
- 2.) Samples of items when called for must be furnished free of expense and if not destroyed in testing, will, upon request, be returned at the bidder's expense. Request for the return of samples must be made within ten (10) days following opening proposals. Each individual sample must be labeled with bidder's name and manufacturer's brand name and number.
- 3.) As a public entity of the state, we use sealed bidding to ensure "fair and open competition" to ensure no one in the buying organization can influence the bidding process or steer the selection of a particular company by sharing competitive proposal information during the solicitation process. Generally, all proposals must remain sealed until they are opened publicly at the time stated in the notice—advance disclosure of the terms of a proposal may be cause for rejection of said proposal. Bidders should never send advanced copies of a sealed proposal via email or screenshots of electronic proposals. Bidders must submit sealed proposals to be opened at the time and place stated in the solicitation for the public opening of proposals and must not be revealed to the buyer before that time. Bids must be signed and sealed with bidder's name and address on the outside of the envelope, and the date and time of the proposal opening and the proposal file number shown in the lower-left corner of the packages, envelopes, express mailing labels, boxes, etc.
- 4.) At least one (1) signed original and one (1) signed copy of the proposal **MUST** be provided. The University **requires** a portable electronic virus/malware free copy (thumb drive) of the proposal response from the responding Vendor to be included in the proposal response package. If an electronic copy is not included, the University reserves the right to request an electronic copy of the **exact** proposal response prior to review of the proposal.
- 5.) For your proposal to be considered, it must be received, and time stamped in our office by 2:00 P.M. of the proposal opening date. It is the responsibility of the vendor to ensure their proposal is received within the appointed time. If your proposal package is not received in Bond Hall, Room 214, by 2:00 P.M. of the proposal opening date, it will not be considered.
 - a. If you are delivering your proposal, you need to hand carry the proposal package to: The University of Southern Mississippi Procurement Services (RFP #)
 Bond Hall, Room 214 Hattiesburg, Mississippi

b. If you are mailing your proposal package via U.S. Postal Service, mail to: The University of Southern Mississippi

Procurement Services (RFP #) 118 College Drive #5003 Hattiesburg, MS 39406-0001

c. If you are express mailing your proposal package via Federal Express or UPS, or any other delivery service which requires the use of a physical address, deliver to:

The University of Southern Mississippi Receiving Department 2609 West 4th Street Hattiesburg, MS 39401

- 6.) Bids or proposals shall not be modified, corrected, altered, or amended after the specified closing time and the opening of such proposals, unless otherwise noted in the request for proposals or proposals.
- 7.) The University of Southern Mississippi reserves the right to reject any and all proposals, to waive any informality in proposals, and unless otherwise specified by the bidders, to accept any items on the proposal. If the bidder fails to state the time within which proposals must be accepted, it is understood and agreed that The University of Southern Mississippi shall have 90 days to accept. The University of Southern Mississippi reserves the right to make an award to this proposal on an all or none basis, or on a line-by-line basis, whichever serves the best interest of The University of Southern Mississippi.
- 8.) Contracts and purchases will be made or entered into with the lowest, responsible bidder meeting specifications.
- 9.) A written purchase order or contract award mailed or otherwise furnished to the successful bidder within the time of acceptance specified in the Invitation for Bid results in a binding contract without further action by either party. The contract shall not be assignable by the vendor in whole or in part without the written consent of The University of Southern Mississippi.
- 10.) Unless written exception is provided in the proposal response, the winning Vendor agrees to be bound by the USM Terms and Conditions, which are incorporated herein, and may be found at https://www.usm.edu/procurement-contract-services/usm-terms-and-conditions.php.
- 11.) Respondents are required to comply with all applicable local, State and Federal laws, codes, ordinances, and regulations in the provision of the materials required.
- 12.) Respondents must comply with Personally Identifiable Information (PII) data protection regarding State, Federal, and University regulations and policies.
- 13.) Legal Provisions to Which USM Cannot Agree

- a. Any provisions disclaiming implied warranties shall be null and void. See Mississippi Code Annotated Sections 11-7-18 and 75-2-719(4). The Vendor shall not disclaim the implied warranties of merchantability and fitness for a particular purpose.
- b. Any limitation of liability for claims related to the following items:
 - i. Infringement issues;
 - ii. Bodily injury;
 - iii. Death;
 - iv. Physical damage to tangible personal and/or real property; and/or the intentional and willful misconduct or negligent acts of the Vendor and/or Vendor's employees or subcontractors.
- c. Any requirements that the University pay interest, except for those in conjunction with USM's standard payment terms of Net 45 days. Payments made beyond 45 days are subject to late fees and interest.
- d. Any terms and conditions in the purchase contract that conflict with the laws of the State of Mississippi. Any such instances shall require a revision of the terms and conditions to ensure compliance with Mississippi state law.
- e. Any provision requiring USM to pay attorney's fees, prejudgment interest or costs associated with any legal action to or for the Vendor, except that which are ordered by a court of competent jurisdiction.
- 14.) Bid files can only be examined during normal working hours by interested parties, but only after the official award has been made.
- 15.) If purchase orders or contracts are canceled because of the awarded vendor's failure to perform or request for price increase, that vendor shall be removed from our bidders'list for a period of 24 months.
- 16.) No addendum will be issued within a period of two (2) working days prior to the time and date set for the proposal opening. Should it become necessary to issue an addendum within the two-day period prior to the proposal opening, the proposal date will be reset giving bidders ample time to answer the addendum.
- 17.) Alternate proposals, unless specifically requested or allowed, will not be considered.
- 18.) Bid openings will be conducted open to the public. However, they will serve only to open the proposals. No discussion will be held with any vendor as to the quality or provisions of the specifications, and no award will be made either stated or implied at the proposal opening. After the close of the proposal opening meeting, the proposals will be considered to be in the evaluation process and will not be available for review by bidders. Proposal openings are not required to be open to the public; however, the resulting award is open for public inspection.
- 19.) Prices quoted shall be firm for the term of the contract or for the stated time of acceptance.
- 20.) The bidder understands that The University of Southern Mississippi is an

equal opportunity employer and, therefore, maintains a policy which prohibits unlawful discrimination based on race, color, creed, sex, age, national origin, physical handicap, disability, or any other such discrimination; and the bidder, by signing this proposal, agrees during the term of agreement that the bidder will strictly adhere to this policy in its employment practices and provision of products or services.

- 21.) Bidders must upon request of The University of Southern Mississippi furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. The University of Southern Mississippi reserves the right to make the final determination as to the bidder's ability.
- 22.) Questions or problems arising from proposal procedures should be directed to the Buyer listed on the solicitation at:

The University of Southern Mississippi 118 College Drive #5003 Hattiesburg, MS 39406-0001 Phone: (601) 266-4131 Bids@usm.edu

- 23.) All items must equal or exceed the specifications listed. The absence of detailed specifications or the omission of detailed description shall be recognized as meaning that only the best commercial practices are to prevail, and that only first quality materials and workmanship are to be used.
- 24.) It is the intent of the specifications to obtain a product that will adequately meet the needs of the user while promoting the greatest extent of competition that is practicable. It is the responsibility of the prospective bidder to review the entire Invitation to Bid packet and to notify The University of Southern Mississippi if the Specifications, Instructions, General, or Special Conditions are formulated in a manner which would unnecessarily restrict competition.
- 25.) It shall be incumbent upon the bidders to understand the specifications. Any requests for clarifications shall be in writing and shall be submitted to our Procurement Services office at least seven (7) business days prior to the time and date set for the proposal opening, unless otherwise noted in the proposal or proposal specifications.
- 26.) The minimum specifications are used to set a standard and in no case are used with the intention of discriminating against any manufacturer. Bidders should note the name and the manufacturer and model number of the product they propose to furnish and submit descriptive literature.
- 27.) Trade names, brand names, and/or manufacturer's information used in these specifications are for the purpose of establishing a level of quality, unless otherwise noted. Bids on products from other qualified manufacturers are acceptable, provided they are demonstrated as equal to those specified in construction, design, and suitability. Each bidder shall submit with his proposal

a complete brochure with pictures on each item and shall point out specifically any deviations from the specified items. Failure to do so may disqualify any proposal. Please proposal as specified or an approved equal.

- 28.) A copy of the manufacturer's standard guarantee/warranty shall accompany and become a part of this proposal.
- 29.) There are no federal or state laws that prohibit bidders from submitting a proposal lower than a price or proposal given to the U.S. Government. Bidders may proposal lower than U.S. Government contract price without any liability as The University of Southern Mississippi is exempt from the provisions of the Robinson-Patman Act and other related laws. In addition, the U.S. Government has no provisions in any of its purchasing arrangements with bidders whereby a lower price to The University of Southern Mississippi must automatically be given to the U.S. Government.
- 30.) All invoices, unless noted otherwise, are to be billed to:

The University of Southern Mississippi Division of Marine Sciences 1020 Balch Blvd Stennis Space Center, MS 39529 Jerry.Wiggert@usm.edu

- 31.) All equipment proposals shall be of current production and of the latest design and construction.
- 32.) Where all, or part(s), of the proposal is requested on a unit price basis, both the unit prices and the extension of the unit prices constitute a basis of determining the lowest responsible and responsive bidder. In cases of error in the extension of price, the unit price will govern.
- 33.) Should the University close due to inclement weather conditions, or any other unforeseen events on the proposal opening date, sealed solicitations will open the following business day at the same time and location.
- 34.) The University reserves the right to solicit Best and Final Offers (BAFOs) from Vendors, principally in situations in which proposal costs eclipse available funding, or the University believes none of the competing proposals presents a Best Value (lowest and best proposal) opportunity. Because of the time and expense incurred by both the Vendor community and the University, BAFOs are not routinely conducted. Vendors should offer their best pricing with the initial solicitation. Situations warranting solicitation of a BAFO will be considered an exceptional practice for any procurement. Vendors that remain in a competitive range within an evaluation may be requested to tender Best and Final Offers, at the sole discretion of the University. All such Vendors will be provided an equal opportunity to respond with a Best and Final Offer under a procedure to be defined by the University that encompasses the specific, refined needs of a project, as part of the BAFO solicitation. The University may re-evaluate and amend the original project specifications should it be deemed necessary in order

to improve the opportunity for attaining Best Value scenarios from among the remaining competing Vendors. All BAFO proceedings will be uniformly conducted, in writing, and be subject to solicitation by the University and receipt from the Vendors under a precise schedule

35.) As an alternative to traditional sealed bids in envelopes, the University of Southern Mississippi is capable of receiving electronic proposal responses. While this option is available, it is not required, and we ask that all potential respondents keep in mind that with any electronic system there could be delays or glitches with the submission process; therefore the University highly encourages traditional sealed bids which are either mailed or submitted in person. Should a vendor choose to submit their response electronically, please follow the instructions below using the following website:

https://www.ms.gov/dfa/bid_proposal_search/Home/Sell. On this site you will find helpful links to procurement opportunities, as well as a link to supplier registration. If not already registered in this system, potential bidders will first need to click on 'Supplier Registration' and follow the steps outlined (a one-time process). Once registered, they can return to the original website and click on 'Procurement Opportunities' where they can either search by keyword for the proposal they desire to respond to or leave the search box blank and click 'Search' for a listing of all current bids and proposals for the various State of Mississippi offices.

AA/EOE/ADAI



THE UNIVERSITY OF SOUTHERN MISSISSIPPI®

HPC Magnolia Expansion

REQUEST FOR BIDS

April 14, 2023

A. Introduction / Objectives

A High Performance Computing (HPC) cluster was developed in 2017 to serve a variety of disciplines at USM funded by The National Science Foundation (NSF) Major Research Instrumentation (MRI) grant. USM's School of Ocean Science and Engineering, School of Polymer Science and Engineering, and School of Biological and Environmental Sciences have funds available to increase the computational capacity of the HPC system. This Request for Proposals (RFP) seeks vendors to provide an expansion solution to the existing HPC system. Project Go-Live Deadline is June 1, 2023.

B. Instructions to Vendors

The Request for Bids coversheet must be included in all sealed proposals for this proposal.

Each proposal must be submitted in a sealed envelope bearing on the outside the name "HPC Magnolia Expansion," the name of the Vendor, the Vendor address, and the notification of opening on the specified date on the coversheet.

C. Payment

The currency used for payment of costs will be in United States dollars.

The University requests to be invoiced annually for maintenance.

During any required implementation the University cannot be invoiced in advance of services not rendered or equipment not received. Therefore, the university prefers to be billed in installments based upon mutually agreed upon project implementation milestones completed.

State law requires that the University receive an **<u>original invoice</u>** from the Vendor and that payment of the invoice is processed **within 45 days of receipt** (Miss Code 31-7-305). The invoice should be on the Vendor's letterhead and/or include an original Vendor representative signature.

USM may choose to use a VISA® Purchasing Card for invoice payments in place of a check to pay for purchases from this solicitation. Unless exception is noted in the proposal response, the bidder, by submitting a response agrees, to accept the VISA® Purchasing Card as an acceptable form of payment and may not add additional service fees/handling charges to purchases made with the VISA® Purchasing Card.

- D. Length of Agreement Intentionally left blank.
- *E. References:* Respondents SHOULD provide a minimum of three (3) customer references, including contact information, that have implemented the proposed solution and/or services in the last 12 months; preferably from higher education institutions.

F. Legibility and Organization: Proposals MUST be printed, written in English, legible, and appropriately structured. Each page needs be numbered sequentially. Proposals MUST be bound.

G. Right to Use Proposals in Future Projects

The State reserves the right to evaluate the awarded proposal from this RFP, including all products and services proposed therein, along with the resulting contractual terms, for possible use in future projects if (a) it is deemed to be in the best interest of the State to do so; and (b) the Vendor is willing to extend a cost less than or equal to that specified in the awarded proposal and resulting contract. A decision concerning the utilization of a Vendor's proposal for future projects is solely at the discretion of the State and requires the agreement of the proposing Vendor. The State's decision to reuse an awarded proposal will be based upon such criteria as: (1) the customer's business requirements; (2) elapsed time since the award of the original project; and/or (3) research on changes in the Vendor, market, and technical environments since the initial award.

H. Pre-Payments with Pro-Rata Refund

State law (Section 31-7-305 of the Mississippi Code Ann.) authorizes the issuance of payment after receipt of the invoice and receipt, inspection, and approval of the goods and/or services. The intent is that goods and services must be received, inspected, and accepted prior to payment. Pursuant to this requirement, where pre-payment has been authorized, all pre-payment contracts will require the following statement in the Termination section: "Upon termination of this Agreement by Licensee or by Licensor, Licensor shall issue Licensee a refund of a proportionate share (based on the number of days in the term year before and after the termination) of the Annual Fees paid with respect to that term year."

I. Criteria for Award

The Vendor selected for an award will be the Vendor whose proposal, as presented in the response to this RFP, is the most advantageous. The university is not bound to accept the lowest priced proposal if that proposal is not in the best interest of the university as determined by the Evaluation Committee and iTech Department based on the table below:

Category	Possible Points
Non-Cost Categories:	
Technical Requirements	30
Vendor Requirements	30
Total Non-Cost Points	60
Cost	40
Total Base Points	100
Value Add	5
Maximum Possible Points	105

Consideration may also be given to any additional information and comments if they should increase the benefits to the university. Upon completion of the initial review and evaluation of the proposals submitted, selected Vendors may be invited to participate in oral presentations.

Travel expenses must not be billed separately. The proposal must consider the cost of any travel expenses.

J. Cost Information Submission

Vendors must propose a summary of all applicable project costs in the matrix that follows. The matrix must be supplemented by a cost itemization fully detailing the basis of each cost category. The level of detail must address the following elements as applicable: item, description, quantity, retail, discount, extension, and deliverable. Any cost not listed in this section may result in the Vendor providing those products or services at no charge to the State or face disqualification.

Description	Units	Cost per Unit	Warranty Included	5 – Year Extended Cost
One-Time Costs				
Hardware				
Compute Nodes				
High Memory Nodes (min. 4)				
CPU/GPU Nodes (min. 4)				
InfiniBand Network				
Gigabit Network				
Management Network				
Integration w/ existing racks and PDUs				
Implementation				
Software				
Total One-Time Costs				
Annual Software, Support, Maintenance, Extended Warranty				
Annual Software				
Maintenance & Support Year 2				

Description	Units	Cost per Unit	Warranty Included	5 – Year Extended Cost
Maintenance & Support Year 3				
Maintenance & Support Year 4				
Maintenance & Support Year 5				
Total Support and Maintenance				
51				
Fully Loaded Hourly Change Order				

K. Bid Specifications

The Vendor response must respond to each requirement in this specification.

Southern Miss has no obligation to locate or acknowledge any information in the proposal that is not presented according to these instructions.

- 1.1 If any component(s) necessary for operation of the requested system is omitted from Vendor's proposal, Vendor must be willing to provide the component(s) at no additional cost. This includes, but is not limited to, all cabling, connectors, raceway, etc. necessary to render the configuration fully operational.
- 1.2 Proposed equipment must be new from the manufacturer and qualify for warranty and maintenance services.
- 1.3 Alternate configurations will be considered as long as the cost, performance, and functionality of the proposed system is commensurate with the specifications for this RFP.
- 1.4 Vendors must provide *cost per node* in Section J Cost Information Submission. USM understands that the price per node will be different depending on the number of nodes, and we encourage Vendors to provide costs for different ranges. For example, "\$5,100.00 if the number of compute nodes is between 70 and 100, \$5,000.00 if the number of compute nodes is between 100 and 150."
- 1.5 The Vendor must provide the cost per node for each type of node.
- 1.6 Vendor's proposed solution must meet or exceed the following requirements. Should Vendor choose to exceed the requirements, Vendor must indicate in what manner the requirements are exceeded.

1.6.1 Compute Nodes

- 1.6.1.1 Powered by two Intel Xeon processors (Cascade Lake or newer, or AVX-512 or greater compatible) with at least 16 physical cores each.
- 1.6.1.2 Motherboard must support IPMI/iKVM for remote management.
- 1.6.1.3 Nodes must contain at least 8GB/core of DDR4 equivalent or better memory with appropriate speed.
- 1.6.1.4 Disks must be either Solid-State Drives (SSD) or Hard Disk Drives (HDD). SSDs must have at least 240 GB capacity. HDDs must have at least 500 GB capacity.
- 1.6.1.5 Nodes must contain Mellanox InfiniBand ports capable of FDR (Fourteen Data Rate) speeds or higher.
- 1.6.1.6 Nodes must contain dual port gigabit, or faster, Ethernet cards.

1.6.2 High Memory Nodes

- 1.6.2.1 A minimum of 4 high-memory nodes must be provided. The requirements for the high memory nodes are the same as those for the compute nodes, except:
- 1.6.2.2 Nodes must contain at least 2TB of DDR4 equivalent or better memory with appropriate speed.
- 1.6.2.3 SSDs must have at least 1TB capacity, HDDs must have at least 2TB capacity.

1.6.3 CPU/GPU Nodes

- 1.6.3.1 A minimum of 4 CPU/GPU nodes must be provided. The requirements for the CPU/GPU nodes are the same as those for the compute nodes, except:
- 1.6.3.2 Nodes must be equipped with NVIDIA Tesla A100 (or higher) GPUs.
- 1.6.3.3 Nodes must contain at least 192 GB of DDR4 equivalent or better memory.
- 1.6.3.4 Disks must have at least twice the capacity of the compute nodes.

1.7 InfiniBand Network

- 1.7.1 The existing InfiniBand network should be modified as needed to accommodate the expansion. An option with the addition of InfiniBand switches should be included. the switches must have a fat-tree configuration, and enough ports to accommodate all the nodes. Appropriate number of cables with cables with suitable lengths to connect all nodes must be provided.
- 1.7.2 A second option that converts the existing InfiniBand network from a 1:1 subscription to a 2:1 subscription should be included.

1.8 Gigabit Network

1.8.1 The existing Gigabit network should be modified as needed to accommodate the expansion. An option with the addition of Gigabit switches should be included if needed.

1.9 Management Network

- 1.9.1 The existing Management network should be modified as needed to accommodate the expansion. An option with the addition of Management switches should be included if needed.
- 1.10 Integration with existing racks and PDUs
 - 1.10.1 The HPC solution must be installed into existing racks in the Data Center at USM. The HPC solution should be compatible with the existing HPC system at USM.
 - 1.10.1.1 Liebert/Knurr Racks Standard 42U -- Knürr Miracel® Server Rack Model #KMK6A112000954S Serial

N08M9G0622 Date Code A-2009 -- 2000 mm / 42 U - Max capacity 2000 lbs - available space includes multiple 42U racks

- 1.10.1.2 Liebert MP Advanced Power StripsTM -- Vert. / 68.25" 120/208 20 3PH L21-20P 1 10' 208 20 3PH/1PH NEMA L21-20 + IEC320 C13 1 + 18 LCD / LED MP-C5135
- 1.10.1.3 Below are some images of the existing racks in the Data Center:



1.10.1.3.1





1.10.1.3.2



1.10.1.3.4



1.11 Software

1.11.1 The Vendor must ensure that the hardware works with the following software

1.11.1.1 Operating System – CentOS 7.x

- 1.12 All systems must have the latest firmware and software updates applied.
- 1.13 Provide details (such as speed and capacity) of different components.
- 1.14 Provide a rack diagram of component placement.
- 1.15 Provide power and cooling requirements for the complete solution.
- 1.16 Proposed solutions must integrate with the existing racks and hardware in the USM Data Center.

2. Installation

- 2.1 Solution must be delivered, installed, and configured to the satisfaction of USM staff.
- 2.2 On-site installation must include all necessary network and serial console cables, adapters, cable management, and installation of the systems in the racks.
- 2.3 Vendor must label all cables and nodes.

3. Warranty/Maintenance

3.1 All equipment provided under this RFP must be covered by a 5-year warranty that includes part replacement.

4. Vendor Requirements

- 4.1 USM acknowledges that the specifications within this RFP are not exhaustive. Rather, they reflect the known requirements that must be met by the proposed system. Vendors must specify, here, what additional components may be needed and are proposed in order to complete each configuration.
- 4.2 Vendors must provide itemized costs for the proposed solution as detailed in Section J Cost Information Submission.
- 4.3 Vendors must have a minimum of 2-3 years of experience in installing cluster systems including appropriate experience with InfiniBand hardware, Multicore platforms, and GPU devices.
- 4.4 Vendors must schedule and provide appropriate technical support personnel to facilitate the installation and testing of the system within (5) business days after the delivery of the system to USM.
- 4.5 Vendors must agree to remain on site until the system installation is acceptable to USM.
- 4.6 Vendors must provide USM staff with an ordered list of the MAC addresses for all of the systems, with related node serial number.

L. Additional Requirements

The University acknowledges that the specifications within this RFP may not be exhaustive. Rather, they reflect the known requirements that must be met by the proposed system. Vendors must specify what additional components may be needed and are proposed to complete each configuration.