**REQUEST FOR BIDS # 2024-004**
**Multiprotocol Bulk Storage**
**RESPONSE ADDENDUM #2**
**September 13, 2023**

<u>**CLARIFICATION**</u>

<u>**Response submission deadline date is extended to September 22, 2023 on or before 11:59 pm EST.**</u>

<u>**QUESTIONS**</u>

**Q1: What is the desired initial usable capacity of the system? What is the yearly growth % and how much growth (if any) should be factored into the initial sizing?**

**A1:** The initial capacity of the system will be dependent on many factors. For the purposes of your response, you can assume an effective usable capacity of approximately 200TB will meet the initial need and cover anticipated growth.

**Q2: What is the process for when you need to add capacity? Will there be a new RFP every time you need to scale up or out?**

**A2:** Not necessarily.

**Q3: Which group at UMaine will be supporting this infrastructure?**

**A3:** The exact support model for this infrastructure has not been fully determined. If there are specific considerations or assumptions that would have an impact on your proposal, please insure that they are included in your response.

**Q4: Are there different service levels required (e.g. high performance databases vs. cold image archives)? Do you want one big flat file system that performs the same, or do you need different performance levels for different workloads?**

**A4:** Our known use cases include both frequently and infrequently accessed information, responses should articulate a cost-effective solution for both needs.

**Q5: What are your plans for protecting this data? Replication or backup or both?**

**A5:** The exact plans to protect this data will vary depending on the source of data. Possible use cases included primary data storage where replication and backup will be desired to archival data where additional backup copies are not required. As indicated in section 1.1.4 of the RFP documents, your solution should consist of a high availability architecture that provides data access during hardware failures.

**Q6: What technology is being used to store the in-scope data today? What do you dislike about that solution architecture?**

**A6:**  As indicated in the RFP documentation, the solution being requested is complementing our existing "traditional" Enterprise storage area.  That solution is not being replaced during this RFP.

**Q7: What backup application is used to protect this data today?**

**A7:**  As indicated in response to earlier questions, this is a new solution within our environment, primarily for new data.    If it impacts your proposal, our current Enterprise Backup environment utilizes Veeam Enterprise Backup.

**Q8: What is the change rate of the data?**

**A8:**  We do not have any detailed information about the data that will be stored in this system.  You are welcome to utilize information from your existing install base as long as your response includes information about assumptions used in your proposed configuration(s).

**Q9: For how long should snapshots be retained?**

**A9:**   Please see the response to question 5.

**Q10: Do you require a single shared storage array to be used across all campuses, or different arrays for the various campuses?**

**A10:**   We are seeking a solution that can serve multiple needs from a single shared solution.  However, it is possible the results of this RFP could be leveraged for other, independent needs.

**Q11: What is the required throughput (in MB/s)?**

**A11:**  We do not have any detailed information about the data that will be stored in this system.  You are welcome to utilize information from your existing install base as long as your response includes information about any throughput assumptions used in your proposed configuration(s).

**Q12: What are the projected total IOPS requirements and how do they breakdown:**
- **% Read?**
- **% write?**
- **% random?**
- **% sequential?**

**A12:**  We do not have any detailed information about the data that will be stored in this system.  You are welcome to utilize information from your existing install base as long as your response includes information about any IOPS assumptions used in your proposed configuration(s).

**Q13: What application(s) will be connected to the storage? Do any of the Applications have guideline requirements in latency thresholds?**

**A13:**   We do not have any information about specific latency requirements.

**Q14: How many staff members need to be trained on the new storage solution?**

**A14:** The exact support module for this solution is still being determined. The minimal support staff will be 2-3 people.

**Q15: Are tamper-resistant snapshots a requirement?**

**A15:** See the response to question 5.

**Q16: Are there any geographic requirements for cloud storage location?**

**A16: Unless proposing a propriety solution, the proposed solution should work with existing (or future) UMS contracted cloud storage services. It is not expected that the respondent would be providing cloud storage services under this RFP.**

**Q17: Is a Rack required for the solution?**

**A17:** No. See the response to question 27.

**Q18: In our organization, VPATs are completed by a third party upon product release. We follow the VPAT 2.1 standard, which incorporates W3C WCAG 2.0 AA. Is it acceptable submit VPATs for these products using version 2.1 versus the newer 2.4?**

**A18:**

**Q19: We understand the Excel cost template is a required document. Please clarify if those cost sheets are to also be included in Section 2 of the submission template.**

**A19:**

**Q20: What is the initial capacity requirement to satisfy? Is there a target capacity you are looking for?**

**A20:** See the response to question 1.

**Q21: How much storage growth is expected y/y?**

**A21:** See the response to question 1.

**Q22: There is an emphasis on high-availability and failover mechanisms. Are you looking for a single site or dual site solution?**

**A22:** Either solution is acceptable, what we are seeking is a solution that can be supported and maintained (including the replacement of field-replaceable components) without disruption to those using the solution.

**Q23: Is there a preferred cloud target for archival? (MSFT, Google, AWS, Oracle, etc.)**

**A23:** Your response should include what cloud vendors you support and any limitations of particular cloud storage choices.  See also the response to Question 16.

**Q24: We don't understand the form of the questions in Section 3, Appendix D.1. Can you please use one of the Agreement Language / Requirements as a sample and explain what it would mean to Agree vs Disagree to the requirement in order to help us understand the intent and format of this section?**

**A24:**

**Q25: What would be the capacity requirements of the total solution and per storage server in terms of usable space?**

**A25:** See the response to question 1.

**Q26: Are there baseline throughput requirements that you would like us to size against?**

**A26:** See the responses to questions 11 and 12.

**Q27: Are there any power or rack limitations in regards to where the solution will be deployed? Should the proposal include rack and necessary PDU or will that be provided by the university? If by the university please provide, rack and PDUs (assuming at least 2x in the rack) models.**

**A27:** Existing APC NetShelter <<MODEL>> racks are available for installation of the selected solution, APC PDUs of appropriate capacity will be provided prior to installation of the selected solution.

**Q28: The RFP references high availability, does it refer to two separate clusters or is high availability referring only to internal component failover of the storage system? Any additional information around failover requirements would be helpful.**

**A28:** Please see the response to Question 22.

**Q29: Should cyber resilience be taken into account when building the solution?  If so, what are the requirements?**

**A29:** We are unsure how you define "cyber resilience".  The proposed solution should be able to provide data protection measures appropriate to each data set.  (See also the response to Question 5.)

**Q30: What front end switches will this platform be connecting to? (Manufacturer brand and type 10G Base-T or SFP+)**

**A30:** The proposed solution should be able to connect to any industry standard enterprise data center switches. Our preferred connection type is 10G Base –T, but other connection types are supported.

**Q31: Are we looking for open-source software solutions for the hardware? Or would we consider enterprise software solutions (proprietary) that would have subscription software costs?**

**A31:** You are welcome to submit any solution that meets the requirements of the Request for Proposal.

**Q32: Are you looking for a hardware only solution, or hardware and software in a validated design?**

**A32:** Either approach is acceptable. Software only or hardware agnostic solutions should submit hardware requirements with enough detail for UMS to include our hardware procurement costs in the evaluation process.

**Q33: Would you need any professional services for this project?**

**A33:** We are not aware of any professional service needs, but your response should include any services required to successfully implement your solution.

**Q34: We have read and acknowledge Appendix A, referred to above.
What Commencement and Termination dates should be filled in?
We suggest "This Agreement shall commence on Award and shall terminate on Support Expiration, unless terminated..."**

**A34:**

**Q35: If all services are included in the price and there is no hourly rate to define, will NA (Not Applicable) be an acceptable answer?**

**A35:**

**Q36: Does UMS prefer to rack and cable the storage appliances or do they desire a services quote for iXsystems to have this done?**

**A36:** We believe that with appropriate guidance and instruction we are able to rack and cable the selected solution. You are welcome to include installation services if you feel it is required for the successful deployment and/or ongoing support of your solution.

**Q37: How many systems is UMS looking to acquire? One per University? Will they all be configured identically? Capacity, Performance, Use Case?**

**A37:** See the response to question 10.

**Q38: Would UMS describe their IT Architecture?**

**A38:** This question is too broad. If there is specific information required to submit a response that has not been provided via the RFP document (including addenda), please submit more specific questions.

**Q39: What SLAs do they guarantee their customers?**

**A39:** As indicated in the RFP documents and our response to question 22, we are seeking a solution that is generally available, and does not require service outages for routine operational and maintenance tasks.

**Q40: What are the RPOs and RTOs they are desiring to meet?**

**A40:** As this solution will be supporting a number of different storage needs, there is not a specific list of RPO/RTOs. Indicating what range of objections could be met by your proposed solution would be sufficient.

**Q41: Our product is a physical device that stores data. The solution is not Cloud based. Our product is operated by the user's IT department. We have no access to end user data stored on the device. The only interface provided is that to IT to manage the system and to provision storage to the end user. Users storing data on the system, have no access but to their own data and no access to any management tools**

**We believe given the above information, that the HECVAT tool does not need to be completed. Does UMS agree?**

**A41:** As a public institution, digital accessibility is required regardless of the number of individuals. A vendor supplied HECVAT is required to allow us to evaluate any areas that might require equally effective alternative access plans for the known user communities. The fact that the supplied interface is only used by a limited number of individuals will be a factor during the accessibility review process.

**Q42: In the University's past experience, is a large percentage of data able to be deduplicated? Is there an approximation as to what percent of all data is benefited by the use of deduplication?**

**A42:** We do not have any detailed information about the data that will be stored in this system. You are welcome to utilize information from your existing install base as long as your response includes information about the amount of usable storage assuming no deduplication and any deduplication assumptions used in your proposed configuration(s).

**Q43: Was the 2023-084-RFP-ASE-Cost-template.xlsx included in the RFP package?**
**If it was, may we have the technical requirements (Capacity, Performance, etc.) for each location**

**A43:** Yes. Please use the file named: 04 - 2024-004-RFP-IT-CostTemplate (See also the following responses for guidance on how to handle technical requirements.)

**Q44: How many systems are being requested?**

**A44:** UMS is seeking a solution that meets the requirements in the RFP document. Respondents are welcome to submit proposals based on their judgement of the configuration necessary to so.

**Q45: Will they be configured identically or are there unique use cases and/or workloads?**

**A45:** We are seeking proposals that can scale to workload and data storage needs as necessary. If respondent chooses to bid multiple systems, they do not need to be identical, but all proposed systems must meet the requirements listed in the RFP documents.

**Q46: How should each system be configured with respect to capacity, performance, throughput, IOPs, and anticipated growth, etc.?**

**A46: We are looking to those responding to this RFP to provide guidance in these areas.**

**Q47: The specs require 10Gb/s networking. Which format is preferred? (copper RJ-45, or SFP+) ? Also, does this requirement apply globally to all appliances or it is for a specific area or use case? Are there any cases where a faster speed is desired?**

**A47:** See the response to question 30. Our desire for 10Gbps networking is specifically targeted at "data" interfaces, independent "management" interfaces do not have this requirement. At this time faster speeds are not required, but you are welcome to include information on upgrade options as part of your "scalability" information.

**Q48: There is no mention of backup or replication, so is there a need for replication for backup purposes?**

**A48:** See the response to Question 5.

**Q49: Are filesystem snapshots required or desired?**

**A49:** See the response to Question 5.

**Q50: From the given requirements, it is not clear how the required storage would be used. Is this to be used in virtualization, backup, replication, or some other workload?**

**A50:** Please see the first paragraph of section 1.1.4 of the Request for Proposals.

**Q51: Are there any limitations we need to be aware of in regard to rack space?**

**A51:** We utilize both the APC AR3100 and AR3300 APC racks in the Data Center, with our deepest rack being the AR3100 @1200mm deep.

**Q52: Are there limitations or considerations we need to be aware of in terms of Power capacity (Amperes) or voltage (i.,e. 120 VAC, 208VAC, 240VAC)?**

**A52:** Our standard rack configuration utilizes APC AP8865 PDUs 208VAC with both C13 and C19 outputs available.