

Statement of Work for Photo/Video Storage Archive System

I. Scope of Work

a. Background

Requirement is to provide a new expandable and extensible storage solution to meet the data store needs for current and future archive requirements and to provide redundancy for critical components to eliminate (minimize) down times. Initial capacity must be approximately 425TB usable, and must be expandable to accommodate a projected growth rate of approximately 60TB per year. Data to be hosted on this solution will consist primarily of large, uncompressible video files.

b. Objectives

Successful vendor will supply hardware components of a high-availability clustered system tailored to the role of network file server meeting or surpassing the requirements enumerated in the Specific Task Requirements section below.

II. Applicable Document

All IT Systems sold in the United States receive their final assembly and test in the USA. Certified Documentation is required per Consolidated and Further Continuing Appropriations Act, 2013 H.R. 933-76, SEC. 516 and H.R. 933-80 SEC. 535.

III. Technical Point of Contacts

N/A

IV. Specific Task Requirements

- a) This storage solution must be clustered to provide failover capability and must also support multi-pathing capability.
- b) This storage must support multiple RAID configurations including but not limited to RAID 0,1,5,6,10 with integrated hot-spares.
- c) Storage solution must support storage services to a minimum of 2 separate, independently configured physical networks.
- d) Storage hardware must have flexible expansion card slots (e.g. SAS3 HBAs, FC HBAs, 10Gb NICs)
- e) Equipment must have IP network attached, web based lights out management and remote console facilities.
- f) Equipment must support dual-port SAS3 drives.
- g) Equipment must have dedicated read and write caches. Must be able to reconfigure and/or add additional cache modules as needed.
- h) Equipment must be able to support both 10Gb IP network and 8Gb fiber-channel network infrastructure. Each head node must initially have 4 x 10Gb network connections and available expansion slots to add additional 10Gb NICs.

- i) Management network traffic for equipment must be isolated from storage network traffic and utilize HTTPS/SSH/SSL. Separate physical connection for device management is necessary.
- j) Equipment must meet ASHRAE 2011 Thermal Guidelines for a class A1 data center, utilizing hot/cold aisles.
- k) Equipment must be free floating and able to mount inside PARAMOUNT-44U-30W-45D racks, and include appropriate rails. Storage solution must fit wholly within a 24" wide (19" between rails) and 48" deep rack with front and rear doors closed and still allow adequate space for cabling and cooling.
- l) Data-Center power is 208VAC.
- m) Equipment must have redundant power supplies.
- n) Equipment must employ energy efficient "green" technology.
- o) Minimum hardware specifications
 - a. Redundant storage controllers, each with the following minimum hardware specs
 - b. 2 Intel Xeon E5-2600L v3 series processors.
 - c. 128GB DDR4 registered ECC memory, with further expansion permitted without replacing initial memory components.
 - d. Redundant SAS3 HBAs in sufficient quantities to support the requested size storage pool and projected growth for 3 years.
 - e. 2-4 copper 1/10Gbps Ethernet NICs (RJ45)
 - f. 2-4 fiber 10Gbps Ethernet NICs (SFP+) with LC SR SFPs included.
 - g. Integrated Remote Lights-out-management facility
- p) Minimum of 425TB useable capacity hybrid storage pool, minimum data protection level of RAID6. SAS3 data drives and interconnects. Storage pool proposed must support independent read and write caches.
- q) Hardware solution must carry minimum of 3 years warranty with 3 years of on-site maintenance NBD.
- r) Hardware solution must be certified to run Oracle Solaris 11.2 OS
- s) Vendor must define specific hardware components and projected costs to accommodate future incremental growth of the proposed storage hardware solution.
- t) Vendor must define the sustaining costs for this solution after the initial purchased warranty is expired, including costs for extending warranty and maintenance contracts.
- u) Vendor must provide the option for buyer to "keep their drives" upon failure. Vendor must define costs for "keep your drive" versus returning failed hard drives.
- v) No single point of failure is desirable.

V. Period of Performance

Delivery of the storage solution hardware to onsite receiving dock must be completed no longer than 45 days after PO award.

Accelerated delivery of the items required herein is acceptable and desirable at no additional cost to InuTeq, LLC. Seller must notify InuTeq, LLC seven days prior to the accelerated delivery date to obtain approval for delivery.

VI. Deliverables

Delivery of the storage solution hardware to onsite receiving dock must be completed no longer than 45 days after PO award.

The storage solution must be delivered with the storage hardware preassembled and rack ready.

Successful vendor will supply hardware components of a high-availability clustered system tailored to the role of network file server meeting or surpassing the requirements enumerated in the Specific Task Requirements section.

Vendor will provide system documentation including architecture drawings, system configuration data, manuals, engineering drawings, configuration guides, and other documentation for the hardware supplied. These may be provided in hard copy form or on electronic media.

Vendor will provide electronic and hard copies of warranty maintenance agreements.

Vendor will supply Oracle certification documentation indicating that hardware solution will support Solaris 11.2 Operating System.

Vendor must provide the option for buyer to “keep their drives” upon failure. Vendor must define costs for “keep your drive” versus returning failed hard drives.

VII. Acceptance Criteria

After delivery and initial damage inspection, equipment will be moved inside data-center for climate acclimation. Equipment will be mounted inside racks referenced above. Cabling between components of hardware solution will be connected in compliance with vendor-supplied documentation. Power and network connections will be made. Equipment will be power up and allowed to reach normal operating temperature. Equipment will then undergo a cold start and observed, must pass all power-on self-diagnostic tests.

The Buyer shall have the right, exercisable within ninety (90) days of the receipt of the goods called for, to reject after inspection any of such goods which are defective, or which do not pass acceptance testing as described above. All such rejected items shall be returned to the Seller transportation collect, for credit or refund and shall not be replaced by the Seller except upon written instructions from Buyer

Notwithstanding inspection and acceptance by the Buyer or any provisions of this subcontract/order concerning conclusiveness thereof, the Seller warrants that the items covered by this subcontract/order will conform to the specifications, drawings, samples, or other descriptions furnished or specified by InuTeq, LLC, and further warrants, that for a period of three years from the date of final acceptance by InuTeq, LLC, except for latent defects, such items will be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defect. Seller agrees that within such warranty period to repair or replace all items or parts of items covered by this subcontract/order which are within the specified period. The warranties and remedies provided for in this Condition and the Condition hereof entitled "Inspection" shall not be exclusive and are in addition to any other rights and remedies provided by law, under this subcontract/order.

VIII. Contractor/Government Furnished Property/Government Furnished Equipment

The system provided by the Seller must integrate into the existing Government Tier III Data Center. Specifically, equipment must be mountable inside PARAMOUNT-44U-30W-45D racks and equipment must be free floating and able to fit inside these racks. Componentized solutions must be able to fit wholly within a 24 wide (19 between rails) and 48 deep rack with the front and rear doors closed and still allow adequate space for cabling.

Power is 208 and equipment must have redundant power supplies.

IX. Special Considerations

- a) Must be certified by Oracle to support Solaris 11.2 Operating System. Oracle certification documentation must be provided.
- b) The storage solution must be compatible with the current Data Center infrastructure to include power and rack mounting. The data center has overhead power supplies.
- c) Power is 208 and equipment must have redundant power supplies. Solution must employ energy efficient “green” technology.
- d) Racks are PARAMOUNT-44U-30W-45D and equipment must be free floating and able to fit inside these racks.
- e) Componentized solutions must be able to fit wholly within a 24 wide (19 between rails) and 48 deep rack with the front and rear doors closed and still allow adequate space for cabling.
- f) Self-contained or —uni-body solutions should preferably meet the following physical dimensions: 24 wide x 48 deep (including front and back doors) and MUST NOT exceed 84 in height due to overhead power tracks.
- g) Equipment must meet cooling architecture with hot/cold aisles.
- h) Equipment must meet ASHRAE 2011 Thermal Guidelines for a class A1 data center.
- i) Self-contained or —uni-body solutions must be able to accommodate seismic anchoring through a standard raised floor to concrete 2 feet below. The Armstrong Flight Research Center is located in a Seismic 4 Zone.
- j) Equipment must be 508 compliant.
- k) Vendor must provide the option for buyer to “keep their drives” upon failure. Vendor must define costs for “keep your drive” versus returning failed hard drives.

X. Security Requirements

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