

SECTION 27 2113 - SERVERS AND STORAGE DEVICES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Servers and Storage Devices

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 SUMMARY

- A. The devices described in this section shall be procured and delivered to the BOE IT department to accommodate the construction phasing of this project. All timelines are described within the phasing schedule.
- B. All manufacturer warranties shall start from the installation date and not necessarily the purchase date.

1.4 SUBMITTALS

- A. Pricing for all devices shown within Article 2.2 – BILL OF MATERIAL BOM must be filled out and submitted with this bid proposal and shall include all unit and total pricing.
- B. Product Data: For each type of product indicated. Include dimensions and data on features, performance, electrical characteristics, ratings, and finishes.
- C. Product Data: Submit manufacturer's technical data, product specifications, installation instructions, and other pertinent information as applicable for each product or material specified.
- D. Samples of manufacturer's standard and extended warranties.
- E. Equipment List: Include every piece of equipment by model number, manufacturer, serial number, location, and date of original installation.

1.5 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain all materials from one (1) source from a single approved manufacturer for each product required within this specification.
- B. The awarded integrator must be a Manufacturer certified reseller of the electronics described within this section.
- C. All devices procured and delivered, as part of this specification shall be new from the manufacturer. Refurbished devices will not be accepted for this project. The technology

consultant will verify all devices prior to delivery and installation of all devices described within this specification.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Take care in handling products in accordance with manufacturer's instructions.
- B. Store indoors in original undamaged packaging, in a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity. Store products upright in secure, protected area. Verify with the manufacturer that site conditions are acceptable before receiving material.
- C. Environmental Conditions: Capable of withstanding the following environmental conditions without mechanical or electrical damage or degradation of operating capability:
 - 1. Interior, Controlled Environment: System components installed in temperature-controlled interior environments shall be rated for continuous operation in ambient temperatures of 36 to 122 deg F (2 to 50 deg C) dry bulb and twenty to ninety percent (20-90%) relative humidity.

1.7 WARRANTY

- A. Standard Manufacturer Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of any device and equipment related to operation, and equipment that fail in materials or workmanship within specified warranty period.

PART 2 - PRODUCTS

2.1 SERVER & PURE STORAGE DEVICES

- A. The selected manufacturer shall be DELL Technologies, Fortinet, and StarTech.

2.2 BILL OF MATERIAL

#	MFG	PART NO.	PRODUCT DESCRIPTION	QTY
1	HPE	P83291-005	HPE ProLiant DL360 Gen11 Rack Server - Intel Xeon Gold 5416S 2 GHz - 64GB - SSD 2 x 480GB - 2 x 1000W	1
2	Fortinet	FG-100F-BDL-950-36	FortiGate 100F - security appliance - with FortiCare 24X7 Comprehensive Support	1
3	StarTech	RKCONS1708K	8 Port Rackmount KVM Console w/ Cables - Integrated KVM Switch w/ 17" LCD - 1U LCD KVM Drawer 50000	2

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine data room conditions, ceiling and wall surfaces to assure they are in compliance with requirements and other conditions affecting installation and operation of all devices within this specification.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 SYSTEM INSTALLATION

- A. The contractor awarded this section is responsible for the Warranty and Support on all items is required.
- B. Comply with all manufacturers' recommendations and best practices.
- C. The contractor awarded this section shall deliver and unpack all devices specified within this document and dispose of all trash.
- D. All device locations must be coordinated and verified by the owner prior to actual installation.
- E. All devices within this specification must be installed per the manufacturers recommended insulation specifications.
- F. All configuration(s) required to obtain a fully functional system shall be included within this portion of work.
- G. Network Installer awarded this section shall be responsible for the following:
 - 1. In addition to the specifications in this section, the installer will implement all configurations supplied by the owner, including, but not limited to-
 - a. Network security configuration
 - 2. Physical installation and rack mounting of equipment
 - 3. Connection of network equipment to uninterrupted power supplies (UPS). Equipment with dual power supplies shall be connected to discrete UPS units.
 - 4. Firmware updates to the latest general release
 - 5. Installation of licenses.
 - 6. Changing of all default passwords
 - 7. All network devices must be labeled and tagged with appropriate descriptions of their location in the building and in the system configuration.
 - 8. Backup copies of configuration files on USB flash drive shall be furnished to the owner.

3.3 SYSTEM STARTUP

- A. The Contractor shall not apply power to the system until after:
 - 1. System and components have been installed and inspected in accordance with the manufacturer's installation instructions.

3.4 CLEANING

- A. Remove rubbish and debris: Installation contractor is not allowed you use the onsite dumpster and is responsible to discard their own debris off site.
- B. Clean installed items using methods and materials recommended in writing by manufacturer.

END OF SECTION 27 2113