Proposal for Server Room

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Server Hardware:

(2x) Dell PowerEdge R730 Rack Server

(1x) Dell Storage MD1420

(20x) Western Digital Gold 4TB Datacenter Hard Disk Drive - 7200 RPM Class SATA 6Gb/s 128MB Cache

(1x) Dell Networking S3100 Series Switches

Room Equipment:

(2x) SmartRack® 18,000 BTU 208/240V Portable Air Conditioning Unit

(2x) Tripp Lite SmartOnline 20kVA 16kW Modular 3-Phase UPS

(1x) Hubbell NEXTFRAME Open Equipment Frame

(1x) SEVO Systems Flex Fire Protection System

Room Other:

201 Series Double Snake Tray® Cable Trays

ABESCO® Fire Rated Expanding Foam - FP200

This server room consists of two (Dell PowerEdge R730) servers each running dual Intel Xeon E52630 v4 2.2GHz processors. These are 10 core (20 thread) CPUs capable of virtualization. There are 32 gigabytes of RAM for each processor. Each server also has two 800gb SSDs. In addition, each server has a redundant PSU. For storage there is a Dell MD1420 direct attach. This unit is filled with 20 Western Digital 4TB 7200 RPM HDDs. This provides a total of 80 terabytes of available storage in the unit. This unit also ships with a RAID controller and also has a redundant PSU. One Dell Networking S3100 switch is present also with a redundant PSU. The room is cooled by 2 SmartRack 18,000 BTU Air Conditioners. Each of these units is easily capable of individually cooling the room. The room receives its power from 2 Tripp Lite SmartOnline UPSs. These units are capable of individually handling the load for the entire room. Additional software required includes Citrix/ VMware licenses for Virtualization and Windows Server (or other OS if preferred) licenses for the server and separate Windows user licenses for the workstations. Microsoft SQL server may also be desired as a DBMS. The server hardware is housed in a NEXTFRAME Open Equipment Frame. The room is protected from fire by a SEVO Systems Flex Fire protection system with their i3 Series Photoelectric Smoke Detectors in place. Cat5 and other cables are managed with multiple 201 Series Double Snake Trays. ABESCO® Fire Rated Expanding Foam is used to seal gaps where cables are run out of the room.