



**April 2, 2004**

**BULLETIN #2**

**PPPL REQUEST FOR PROPOSALS (RFP) NO. 04-036-G**

**TAPE LIBRARY AND STORAGE AREA NETWORK (SAN) SOLUTION**

This Bulletin #2 for RFP 04-036-G is being issued to address various questions received by PPPL in regard to this RFP. The questions received to date and PPPL's responses are forwarded herewith for the information of all prospective Offerors. These questions and answers further clarify PPPL's requirements as set forth in the RFP.

The complete RFP and this Bulletin #2 are posted on the PPPL Business Opportunities website under Lab-Wide Business Opportunities and are available for viewing and download at the following URL:

**<http://oorm-1.pppl.gov/public/procurement/>**

Kindly acknowledge receipt of this message by replying to this email at [swarkala@pppl.gov](mailto:swarkala@pppl.gov). If you encounter problems when trying to access, view or download the online documents or if you have any questions concerning the RFP or its contents, please contact the PPPL RFP Coordinator:

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RESPONSES TO QUESTIONS RECEIVED**

**QUESTION #1**

Does the Dell PowerEdge Media Server have an existing Veritas Media server license? If not, is license required with the bid? Also, if a license is required, please confirm the number of CPUs within the Dell PowerEdge server?

*No, the existing Dell PowerEdge Media Server does not have an existing Veritas Media Server license. These licenses are required to be provided as a part of this scope of work (see Section 3.2.1.1 of the SOW). The Dell PowerEdge Server has 2 CPUs. Following is the detailed configuration of the server:*

PowerEdge 6650 2.0GHz/1MB Cache Xeon, Redundant Power
Dual Processors 2.0GHz/1MB Cache, Intel Xeon PowerEdge 66XX
4GB DDR SDRAM (4X1GB)
73GB 15K RPM Ultra 320 SCSI Hard Drive, PowerEdge
73GB 15K RPM Ultra 320 SCSI Hard Drive, PowerEdge
146GB 10K RPM Ultra 320 SCSI Hard Drive
146GB 10K RPM Ultra 320 S CSI Hard Drive
146GB 10K RPM Ultra 320 SCSI Hard Drive
PERC3,DC,128MB,2 Internal & 0 External Channels, with Documentation
1.44MB,3.5in,Floppy Drive, for Dell PowerEdge Servers
Red Hat Linux 2.1 Advanced Server w/ Documentation and 3 year RHN subscription, PowerEdge
Dell OpenManage Kit,32-Bit
Logitech System Mouse, Gray, Servers
Broadcom NetXtreme 10/100/1000(cat 5), Network Adapter
24X IDE Internal CD-ROM, Black, for Dell PowerEdge
Controller Card,SCSI,39160, Internal/External,U3,Low Voltage Differential
AR1R5 Add-in RAID 1/RAID 5
Versa Rails,PE6650
Broadcom NetXtreme 10/100/1000(cat 5), Network Adapter
Spare Power Supply,PE6650
Spare Fan,P66X0

**QUESTION #2**

How many Veritas NetBackup software licenses and support licenses for base and SSO option are required?

*The Dell PowerEdge Server will require software licenses and support for base and SSO option. The two (2) Storage Array Fileservers will not require these licenses if the vendor proposes this equipment as part of their SAN Solution. PPPL's plan is to purchase these licenses at a later time.*

**QUESTION #3**

Are install charges for Veritas NetBackup base and SSO option required?

*No. PPPL plans to install this software.*

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**QUESTION #4**

What is the PCI Bus architecture of the Dell PowerEdge Media Server (this is needed to determine the exact HBA model)?

*See Dell PowerEdge configuration details included with PPPL's response for Question #1. Note that Dell has previously recommended a Qlogic 2340 HBA when PPPL inquired about purchasing an HBA with the server.*

**QUESTION #5**

What is the specific model number of the Dell PowerEdge Media Server?

*Dell PE 6650 – see configuration details included with PPPL's response for Question #1*

**QUESTION #6**

Is the Dell PowerEdge Media Server running Linux AS 2.1 or 3?

*Red Hat Linux Advanced Server release 2.1AS*

**QUESTION #7**

Will the Dell PowerEdge Media Server require access to the Disk Array (via the switch)?

*NO.*

**QUESTION #8**

What will be the distance from the Dell PowerEdge Media Server to the switch (needed to determine FC cable length)?

*Maximum of 50 feet*

**QUESTION #9**

What will be the distance from the Tape Library to the switch (needed to determine FC cable length)?

*Maximum of 50 feet*

**QUESTION #10**

What will be the distance from the Disk Array to the switch (needed to determine FC cable length)?

*Maximum of 50 feet*

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**QUESTION #11**

What will be the distance from the Sun Fileservers to the switch (needed to determine FC cable length)?

*Maximum of 50 feet*

**QUESTION #12**

Will the Disk Array need to support only the Sun Fileservers' NFS storage requirements (attach only to NFS servers via the switch)?

*Initially the disk array will need to support Sun fileservers. Possible future expansion would include Linux (Redhat), Windows, and VMS, although direct VMS LUN support is non-essential and could be done via NFS.*

**QUESTION #13**

What servers will be needing connection to the Disk Array via the SAN (the switch)? Please specify OS & HW platform(s).

*The OS for fileservers will be Solaris on the SPARC hardware platform. Future expansion possibilities are listed above.*

**QUESTION #14**

What are the storage needs/requirements on the OpenVMS platforms?

*ODS-5 file system preferred or ODS-2 at a minimum. Storage needs 1 terabyte.*

**QUESTION #15**

Will the PPPL OpenVMS storage needs be addressed via the NFS servers?

*NFS using VMS Multinet TCPIP to mount the NFS mount points on the NFS Servers.*

**QUESTION #16**

3.2 Materials - Maintenance, Support and Installation - Do response times refer to telephone support unless otherwise specified?

**CLARIFICATION OF MAINTENANCE AND SUPPORT REQUIREMENTS:**

*The Statement of Work specifies minimum maintenance requirements for each hardware component in sections 3.2.1.2 (Tape Library), 3.2.2.2 (Disk Storage Array), 3.2.3.2 (SAN Switch), and 3.2.4.2 (Storage Array Fileservers). Although PPPL's minimum requirements are specified separately for each component, it is PPPL's desire to have a single point of contact for all warranty, maintenance and support service for the entire Tape Library and SAN solution including software. If the optional fileservers are not included in the solution selected for award, they will be maintained under a separate agreement by PPPL.*

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*To further clarify PPPL's warranty, maintenance and support requirements, Offerors should note that when referring to "Full Warranty Support" PPPL means full support including provision of all parts, labor, travel costs, etc. to maintain or repair the components during the specified period of time (3 years of coverage for the entire system). PPPL requires at a minimum that telephone support be available from 8AM to 5PM, Monday – Friday with a maximum 4 hour response for call backs. When onsite repairs or maintenance are determined to be necessary, minimum Next Business Day Onsite Response is required.*

*For purposes of the proposal, Offerors shall provide details on their standard warranty offerings for the various components and shall include the warranty terms and conditions in their proposal. Offerors shall separately discuss and price any maintenance/support add-ons included to provide the minimum coverage and single point of contact approach required by PPPL.*

**QUESTION #17**

Are GSA terms and conditions preferred, equal to or not preferred over the Sample Subcontract terms and conditions?

*Firms who propose based on a GSA or other federal government contract arrangement should specify the contract number in their proposals on the Pricing and Information Form in the space provided. The GSA or other federal government contract terms and conditions will supercede and replace PPPL's Terms and Conditions for Commercial Items or Services included in Schedule A of the Sample Subcontract Agreement provided with the RFP.*

**QUESTION #18**

We already have existing Terms and Conditions contracts in place with Princeton University. Can these terms and conditions or contracts be used in this response?

*No. PPPL's desired terms and conditions for this action are included in Sample Subcontract Agreement set forth in Section IV of the RFP. Offerors should indicate on the Pricing and Information Form that they will accept PPPL's terms and conditions, that they take exceptions to PPPL's terms and conditions, or, if applicable, specify a GSA or other federal government contract that would apply in lieu of PPPL's terms and conditions.*

**QUESTION #19**

Can VMS be supported using NFS?

*Yes, VMS can be supported using NFS.*

**QUESTION #20**

Are there any floor space, rack-space, power supply etc limitations that may apply?

*There are no physical limitations that PPPL is aware of.*

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**QUESTION #21**

Regarding 3.2.1.1, what are functional criteria for choosing 4 or 6 as the number of tape drives?

*Newer generation drives have better throughput and higher density. Therefore, it would take fewer drives for the same workload. Older drives would take more drives for that same workload. Duplication of tapes also requires additional drives as now required by our backup policy. Restores also require additional tape drives.*

**QUESTION #22**

What model is the 3.2.1.1 Dell PowerEdge server and number of available slots/types (low-profile etc)?

*See configuration details for the Dell PowerEdge server included with PPPL's response for Question #1*

**QUESTION #23**

Is the PowerEdge currently running NetBackup Datacenter, or is this to be a new full license of NetBackup with SSO and tape library support? Question relates to the requirement for "base & SSO option". What is meant by "base"?

*See PPPL's responses to Questions 1 and 2.*

**QUESTION #24**

Will Tape, Disk Storage, and file servers be co-located with the PowerEdge Media Server? If not, what is the approximate maximum cable run length from & between storage array/switch/tape library and media server?

*See PPPL's responses to Questions 8, 9, 10, and 11.*

**QUESTION #25**

Regarding 3.2.3, the commonly accepted distance limitations as published by switch and HBA manufacturers for 62.5 cable are as shown in the following:

Distance:

(1Gb/s)

500 meters (1,640') 50/125  $\mu$ m fiber  
300 meters (984') 62.5/125  $\mu$ m fiber

(2Gb/s)

300 meters (984') 50/125  $\mu$ m fiber  
150 meters (492') 62.5/125  $\mu$ m fiber

Will the 2 Gbit distance limitation be exceeded in this application on 62.5 cable?

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*We will conform to the distance limitations specified by the accepted SAN switch's configuration requirement. We would prefer a switch that could provide 2Gb throughput over a 450m distance, but understand we may need to accept one that only provides 1Gb at that distance.*

**QUESTION #26**

What model of Sun/SPARC server approximates the desired capabilities for the file servers in the planned environment (throughput etc)? For example a Sun Fire V210 offers everything specified but the second PCI slot. Use of a dual-port card can accommodate this limitation more cheaply than moving to the V240 with extra (very slow 33 MHz) slots.

*The Sun V240 is a closer match to our specifications in section 3.2.4.1, partially because it has the required redundant power supplies and dual power cords.*

**QUESTION #27**

What level of Solaris OS is desired for the 3.2.4 file servers?

*Solaris 8 or higher (for SPARC).*

**QUESTION #28**

Would PPPL consider Solaris x86 on an open systems Intel or Opteron platform (such as the Sun Fire V20z)?

*PPPL will not consider Solaris x86.*

**QUESTION #29**

Is the SAN storage array part of a "backup to disk" architecture or simply the storage resource for the file servers and other devices/applications?

*The SAN storage array is intended to provide fiber attached primary storage for the NFS file servers and other systems currently not identified, not a "backup to disk" device.*

**QUESTION #30**

Can you send the RFP in Word format?

*The RFP is not in a consolidated form for posting in Word Format. The forms included in the RFP that must be filled-in and submitted with the proposal (Pricing and Information Form and PPPL Representations and Certifications Booklet) will be posted in MS Word Format for download from the PPPL website.*