



## WASHTENAW COUNTY FINANCE DEPARTMENT

### Purchasing Division

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### RFP 6783 Mandatory Meeting Questions & Answers:

1. Do you want to replace FS7600 NAS in City of ANN Arbor Data Center and Wheeler Data Center? Is FS7600 NAS in Wheeler data center a backup and same size for FS7600 NAS in Ann Arbor Data Center?

Washtenaw County is not looking to replace the existing FS7600 NAS at this time. Both FS7600 are identical in data storage design.

2. Are the SSD in current VNX5700 for caching or data storage?  
The SSD in the VNX5700 are used for data storage.

3. About the capacity of your current VNX5700, the RAW capacity is  $(536.80\text{GB} \times 108 + 1834.35\text{GB} \times 53) = 151\text{TB}$ , but the usable capacity is  $(8514.61\text{GB} + 73741.74\text{GB} + 7337.4\text{GB})/1024 = 87.5\text{TB}$ , that means you lose about 50% of capacity. Could you please double confirm it?

VNX5700

4 Hot Spare 536.80GB SAS Drive and 3 Hot Spare 1834.35GB NL SAS Drive  
RAW Capacity  $536.80\text{GB} \times 104 + 1834.35\text{GB} \times 50 = 147\text{TB}$

Raid10

RAW Capacity 26 536GB SAS Drive = 13.6TB  
Usable 8.2TB

Raid6

RAW Capacity 93 536.80GB SAS Drive + 39 1834.35GB NL SAS Drive = 118.63TB  
Usable 73.7 TB

Unbound Drives = Available to add to RAID configurations

RAW Capacity 11 536.80GB SAS Drive = 5.9 TB

RAW Capacity 5 1834.35GB NL SAS Drive = 9.1 TB

EMC Celerra hosted on VNX5700

RAW Capacity 6 1834.35GB NL SAS Drive = 11 TB Usable 7.3 TB

4. In your current RAID Solution, there is 7,337.4 GB for NAS; is it from VNX5700 or from your FS7600 NAS?

EMC Celerra NAS is currently hosted on the VNX5700

5. Raid 1/0 is Raid10 or Raid0 or Raid1?  
RAID 10

6. There are 30TB for Raid1/0, 150TB for Raid6 and 50TB for NAS in your new requirements, could you please share us your thought about the percentage of SSD, SAS and SATA, or your performance requirement, then we can figure out our proposal based on that.

Vendor bid should reflect percentage of SSD, SAS and SATA to meet standards of solution being proposed.

Current VNX5700 solution is 5% SSD 32% SAS 63% SATA

7. I guess you would like to keep your Juniper EX4200, so all the interfaces of NAS storage, backup storage and archive storage will be based on GE network. Am I right?

Washtenaw County is open to any solution required to meet standards of solution being proposed. We will not allow Secured VLANS and DMZ VLANS to connect on the same physical interface.

EMC VNX5700 is connecting using Fiber Channel. Vendor will submit connectivity solution to meet Storage solution being proposed.

8. Service level, 9x5xNBD, 9x5x4Hours, 24x7x4Hours ? Which one do you want

Washtenaw County is requiring a non-single point of failure solution for SAN Storage. A 9x5xNBD maintenance contract will be acceptable as long as parts and service are available by 11:00 am NBD, this will include weekend support.

9. Can you please specify the source type and location (i.e. general files from a normal directory, database files from an active MS-SQL database, etc.) of the data you want to archive?

Washtenaw County is looking to archive file shares, PST folders and Common data share folders. We have estimated about 50 TB of data shares that would be a good candidate to migrate automatically to an archiving solution. MS-SQL Databases and Oracle database not viewed as achievable at this time

10. How long will data that is archived be kept? What is the retention period?

Data requirements will range from 1 year to 15 years based on the Application or Department business requirements, which may be indefinite.

11. Does Archive solution need to be online disk or will tape be considered?

Washtenaw County is looking for an automated disk solution where end users will be able to retrieve documents at any time to update and review.

**GENERAL:**

12. Does the RFP include the City of Ann Arbor?

Washtenaw County works in collaboration with City of Ann Arbor and other entities. Where it is beneficial to share resources both agencies collaborate on solutions. Proposal should be available to award City of Ann Arbor any and all solutions should they wish to purchase said solutions separately.

13. What is the priority weighting for each component of the decision criteria for selecting the winning bid?

SAN Storage Solution is priority over backup and archiving solution. Washtenaw County needs to purchase a reliable and cost effective solution to meet to growing demands for disk requests. Weighting scale is still being discussed

**SAN:**

14. Can you provide a breakdown of all servers connected to the SAN with the following information?

Server name	Operating System (with service pack)	HBA Model	HBA Quantity	Multipathing used (OS native, application ie: PowerPath)	QTY LUN(s) assigned	Size of LUN(s) assigned	Size of disk in use per LUN	Inactive data (GB) for archiving purposes	Application
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If any of the above information is not available, would Washtenaw County be willing to carry out an assessment of their data in order to determine this?

Washtenaw County will be releasing a separate RFP for Front End server hardware to connect to SAN Storage Solution that will be awarded from RFP 6783. Current hardware is End of Life and requires replacement.

RFP 6783 is requesting replacement of existing Cisco Fiber Channel 9512 switches with 72 current connections and expandable up to 144 connections.

15. Does the archiving technology have to have any additional requirements, ie: compliance with certain industry regulations (Sarbanes Oxley, PCI etc.) –

This will be reviewed with each Department to confirm to PCI, CJIS, Hipaa and any other compliance to preserve data security.

Please define compliance standards available with your proposed Archiving solution.

16. Estimated number of IOps desired for the new SAN?

Washtenaw County is requesting all proposed solutions meet and exceed industry standards.

17. Estimated max throughput (MB/s) desired for the new SAN?

Washtenaw County is requesting all proposed solutions meet and exceed industry standards.

### **BACKUP:**

18. In order to properly scale a backup solution, we want to know the following:

Expected Solution Life in years –

RFP 6783 – States Expected Solution Life in years to exceed 5 years

19. Change Rate Timeframe (daily, weekly, monthly or yearly)

Can vary based on Application, Auditing, or Retention of files

20. Growth Rate Timeframe (daily, weekly, monthly or yearly)

Can vary based on Application, Auditing, or Retention of files

21. Replication Bandwidth available?

10GB Single mode fiber between sites 1GB uplinks to EMC Avamar Solution redundant

22. Type of Data - Data (in TB) - Change rate (%) - Growth rate (%) - # of Full Backups - # of Incremental Backups

Exchange

Oracle

SQL

Home Shares

Engineering

Virtual Machines

Washtenaw County is currently protecting 53 TB of data on EMC Storage Solution

Backup is comprised of above storage request types. We currently maintain a 42day window for backups

Current change rate is 300GB per night based on garbage collection reports from EMC Avamar

Does the backup require having specific application integration (SQL, Exchange, Oracle etc.)?

Exchange, SQL, Oracle, VMware and VDI

23. Are there any clustered applications?

Window Microsoft Exchange 2010 is currently only clustered application

24. What are the desired Recovery Point Objective and Recovery Time Objective?

Washtenaw County has applications – JDE Financial, XJail, Exchange, NewWorld Financial that would be good candidates for Recovery point or hourly snapshots to recover to in case of system or physical outage.

Is the intention for the DR site to be a “hot” or “warm” standby?

DR site would be hot and running constantly. Washtenaw County is requesting unit pricing in order to budget for future DR site.

25. Since Washtenaw is not requesting a second SAN for replication to secondary location, where does Washtenaw intend to restore data to in case of loss of the primary site?

Washtenaw County will be building a DR site after primary SAN Storage solution is installed and in production.

26. What does the 50TB of NAS encompass (ex. Home Directories, archive, etc)?

GIS Data, Court Audio Recordings, Common Drives and Documentation folders

27. It is our understanding that VDI is not a part of this scope – can you please clarify?

Washtenaw County will issue a separate RFP for VDI solution; SAN Storage solution could provide storage for VDI or could be a separate storage solution.

28. What type and how much data needs to be archived?

Approximately 50 TB of data that can be archived, this data is made up of the following file types:

- Unstructured User/Unstructured Department Files (Off Primary File Server)
- Court Video Files
- Sewer Inspection Videos
- Possibly Security Surveillance Videos
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29. Do your apps manage the lifecycle policy of the data and the data retention policy?

All data is configured for a 42 day retention policy on backups. If data is deemed removable, this is a manual process. We would like to continue with this method.

30. What DB manufacturers are you using? What Versions?

Microsoft SQL server version 2008, Oracle version 10.1

31. What is the # of lines of business or business units that you want to be able to do chargeback for? Do you have chargeback model developed- can you provide us the model?

Washtenaw County would like to be able to customize this and be able to add business units and agencies as we grow. There has been no charge back business model developed internally as of yet.

32. What are your video surveillance data protection requirements?

Washtenaw County retains all video for 30 days with a few exceptions that are retained for 60 days. This totals approximately 15TB of data currently with future growth to be approximately 30TB.

33. To clarify – RFP states that you want services for migration – do you also want services bid out for rack and stack, etc.

Washtenaw County is requesting all proposals include installation and setup in Data Center to allow professional services to migrate existing data to new storage solutions being proposed.

***With Best Regards,***

***Angela O. Perry***  
***Washtenaw County Purchasing Manager***