

Memo

To: Board of Managers
From: David Mandt
Date: January 12, 2015
Re: Managed Service Provider Recommendation for Server Upgrade

Purpose:

In August, the MCWD Board of Managers were presented a 2015 workplan for the IT program which was accepted by the Board at the August 7, 2014 meeting. Prior to the creation of the workplan, staff and consultants worked together to map out the technology needs of the District and had identified the need to expand the server capacity and backup environment, budgeting accordingly.

Due to the tremendous growth of the Laserfische system, the current server and backup systems have been struggling to keep up with the ever expanding electronic footprint of the District. This has resulted in the server being dropped routinely and backup systems frequently malfunctioning. When designing the initial installation of the server environment, staff and consultants recognized the benefits of providing a solution that could operate as a stand-alone operating system and that could also easily be expanded to accommodate growth as needed. With the efficiency of staff and consultants to organize and file the District's documents into the Laserfische archiving system, it has been made apparent that expansion would be beneficial to the District at this time.

Also in the 2015 workplan was the acknowledgement that the current system for providing Board packets to the Managers through Dropbox was an outdated and inefficient process that often limits the amount of information the Board is able to access. Funds were budgeted to allow staff to work with consultants to research alternative options and staff is currently working with consultants to assess the possibility of providing Laserfische licenses to the Board of Managers, as a potential solution. Given the probability of introducing Laserfische to the Board sometime in 2015, addressing the capacity of the server is an immediate priority for the District.

Veracity, the District's Managed Service Provider, has provided staff and the Board with a network diagram that includes the expansion, as well as a quote to implement and is attached to this memo. The 2015 workplan identifies the server, network data storage and archive items as routine operating procedures and a resolution to commence the installation will be included on the consent agenda for Board approval at the January 29, 2015 Board meeting.

Minnehaha Creek Watershed District

2015 RECOMMENDED PROJECT/PROGRAM WORK PLAN

PREPARED BY: David Mandt DATE: August 7, 2014

<u>Project</u>	Information Technology Work Plan
<u>Description</u>	The Information Technology Work Plan anticipates and implements technology based on the needs of the District. The Information Technology program collaborates with staff and consultants' to address areas of improvement; researching technology options, identifying inadequacies and efficiencies, developing solutions; implementing programs and making recommendations to the Board of Managers.
<u>Location</u>	District-wide
<u>Program Elements</u>	<p>The Information Technology Fund was created in 2009 as a tool for tracking funds designated for projects, working with consultants, defining and creating efficiencies related to District technology. Annually, staff and the District technology consultants create a work plan and a budget recommending both current and future items. The items are organized into three program elements surrounding the operation of District technology. Two of the categories focus on annual items: licenses, continuation of projects, equipment and general information technology. The third element focuses on projects recommended. Summary detail for each is included below.</p> <p><u>For 2015, Information Technology will focus on Three main program elements:</u></p> <p style="padding-left: 40px;">1. MCWD General IT: (\$134,000)</p> <p>The Information Technology Fund for 2015 proposes to funding levels needed to assist with existing office functions, pay for consultants assisting the District with technology, as well as improve established programs.</p> <ul style="list-style-type: none"> • <u>Consulting Services</u> – The District has developed a team of consultants assigned to Information Technology needs for the MCWD. The consultants work under a contract through the District request for services policy. Several project specific consultants work with the District on identified project(s), and may or may not have a contract for service. This line item also accounts for legal services pertaining to Information Technology. • <u>Business Planning</u> – Staff recently met with Veracity, Intuitive, and Solbrekk to assess progress on 2014 initiatives and to identify the next steps in the business planning process. Highlights include: continuing to refine internal processes, utilizing current hardware and software capabilities currently in place and expanding capabilities based upon need. Staff will continue to receive training and assistance on business policies for organizing and storing data, including elimination of redundancies. Historical electronic data will continue to be audited and deleted, in accordance of the record retention schedule, or archived in the District's sophisticated archiving system, Laserfiche if applicable. Additional expansions will increase efficiency in data management, including allowing users "Record Management" capabilities, and additional user licenses for consultants,

board members and more staff to access the archives. The IT workplan will also include an analysis of our current File Transfer Protocol (Dropbox) against other solutions available for security, storage and ease of use.

- District Audio Visual Upgrade – Staff have been consulting with MSpace to refine the audio and video equipment in the Board room. This includes routine maintenance, troubleshooting, identification of system flaws and researching available solutions. This will be on-going into 2015, with additional hardware and software purchases to improve audio; create more accessibility to audio and video options; streamline the operating process for staff utilization; and increase interactivity between presenters and board members to allow for clearer understanding and promoting collaboration.
- Contacts Database – In 2013, Veracity recommended the use of Microsoft Exchange for the District’s contact database solution. The 2014 work plan program for purchase, installation and training to create a contacts database using Microsoft Exchange will continue into 2015. Compatible software add-on’s (currently investigating ACT!) to streamline the database, create more efficiency between departments and promote collaboration through dashboards will also be added in 2015.
- Staff Training – The District provides regular technology training to new and existing staff. Training includes understanding the server environment; record retention; remote access; telephone features; VPN; mobile technology; electronic mail; technical hardware and equipment throughout the facility. The trainings are facilitated by both existing staff and consultants and include hand-out resources as well as interactive technology tours to familiarize staff with the various technology features throughout the building.
- Arc GIS and Internal Mapping
District staff have embraced the interactive mapping features provided by Arc GIS and the system is being used throughout the organization. Historically the costs of operations and maintenance of the Arc GIS system, as well as user licenses, have fallen within the Planning Department workplans. As this has become a valuable tool for all departments, the costs of providing it to all staff have been included in the IT budget instead.
- Website
The 2015 IT workplan includes funds designated for website development projects related to initiatives highlighted in discussions with consultants through an RFP process. Equipment and software for web streaming will be researched for educational presentations as well as community outreach initiatives, expanding the District’s abilities to interact with the public. Web hosting costs are also being added as an IT function.

2. MCWD Equipment: (\$20,000)

In 2015, the Information Technology fund has designated to replace existing equipment as part of a replacement schedule, as well as scheduled upgrades to existing technology.

- Computer Replacement and Updating of Equipment – The MCWD has a policy to replace of technology based upon the Minnesota State Auditor’s Office depreciation schedule guidelines. The policy covers items such as the District desktop computers, laptops, projectors, tablets and monitors. Staff receives an annual report from the District’s managed service provider, Veracity, tracking the age of equipment, and coordinates the items to be purchased per the replacement

	<p>schedule. Current policy defines the replacement schedule for a computer at four years and the District divides the number of computers into a four-year replacement cycle. Staff and District consultants have also planned for expansion of the server capacity and backup environment in 2015.</p> <p>3. MCWD System Needs: : (\$20,000)</p> <p>As part of the initial building planning, the team of consultants recommended that in the District budget for 2014 and beyond, 10% of the value of the total building's technology system be placed in a contingency fund. The fund would allow the District to replace or upgrade existing hardware, software and labor projects that are not projected. The contingency would also allow for flexibility in the event that any additions or updates to the system are desired.</p>
<u>3.Outcome</u>	The Information Technology Work Plan strives to maintain the existing District technology environment while improving efficiencies through a programmatic approach. The desired end result is to provide reliable, timely service and to facilitate a process of ongoing efficiencies, creating stabilization for users throughout the District.
<u>Schedule</u>	On-going

Five Year Budget/Levy History

Year	Budget	Tax Revenues	Grants & Other Rev.	Expenditures	Transfers In (Out)	Carryover
2009	\$ 0	\$ 0		(\$ 0)	\$71,333	\$ 71,333
2010	\$71,333	\$ 0		(\$85,012)		(\$13,679)
2011	\$76,600	\$ 126,917		(\$ 95,100)	\$33,360**	\$117,605
2012	\$93,000	\$ 41,502		(\$93,000)		\$66,107
2013	\$232,500	\$166,393		(\$232,500)		\$0
2014	\$155,000	\$155,000		(\$155,000)		\$0
2015	\$174,000	\$174,000		(\$174,000)		\$0

** Transfers in from 4201 Building Fund (This amount was miscoded in 2010).

Recommended 2015 Budget and Levy

Budget: \$ 174,000
Levy: \$174,000

Budget	Planning and Policy Development	
	Contracted Services-Business Plan-	15,000
	Survey/Data Collection	
	Engineering/Consulting/Piedmont	10,000
	Equipment/Supplies/Laserfiche	15,000
	Meetings/Seminars	
	Maintenance Plan Dev.	
	Legal	
	Other/Miscellaneous	
	sub-total	40,000
	Project/Program Implementation	
	Training-Support	5000
	Contracted Services/Intuitive	10,000
	Project Management -Arc GIS	14,000
	Supplies/Equipment- Network Data Storage and Archive	18,340
	Engineering	
	Supplies/Equipment-RDS Server	4,500
	Construction	
	Landscaping/restoration	
	Legal	4,160
	Meetings/Seminars	
	Security	
	Other/Miscellaneous	
	Hardware/Software	3,000
	Permit Acquisition	
	Technology System Maintenance	20,000
	Grants/Awards/Loans Given	
	sub-total	79,000
	Communications-Education-Stakeholder Involvement	
	Training - Website	2,000
	Supplies/Equipment- Audio/Video Upgrades	10,000
	Meetings/Seminars	
	Printing	
	Publishing	
	Web Developing	25,000
	Web Hosting/ Support	3,000
	Other/Miscellaneous	
	Computer Services	
	Contracted Services-Contact Database	15,000
	Engineering/Consulting	
	Legal	
	Construction	
	Teacher Stipend	
	Grants/Awards/Loans Given	
	sub-total	55,000

Date: 1/10/2015

Consultant: Jon Hutchins

Presents:
Network Infrastructure Upgrades Proposal

Exclusively Prepared For:

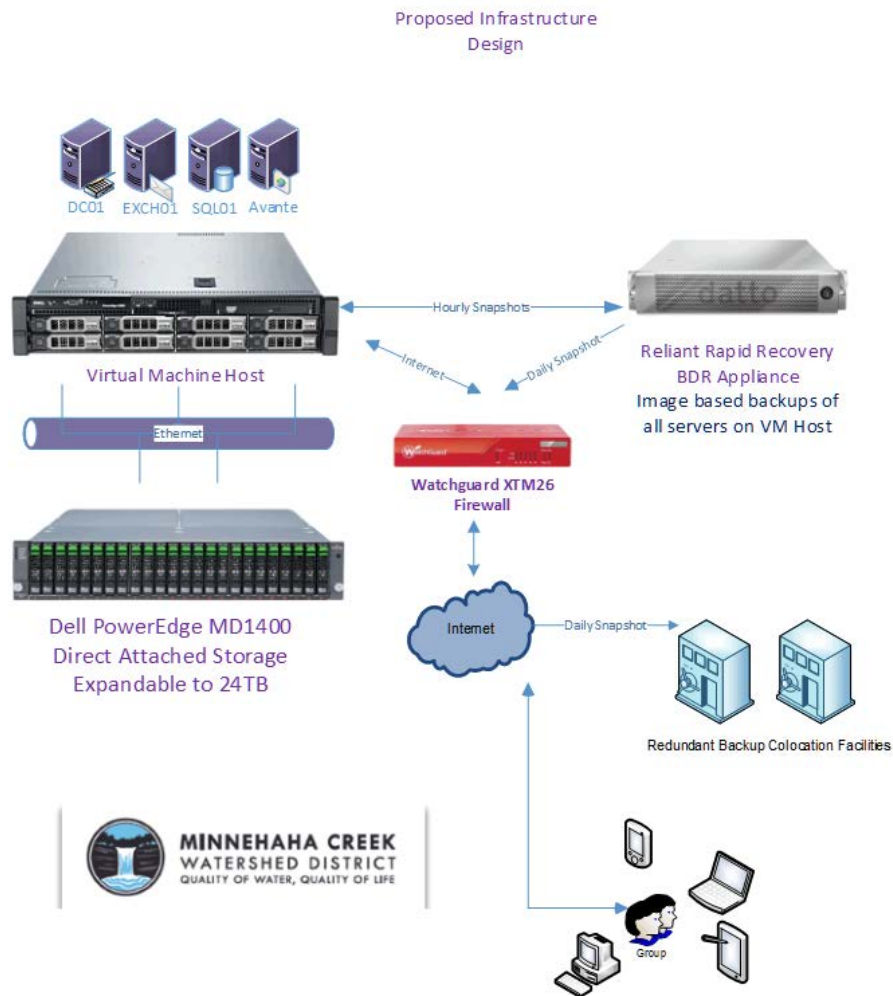
Minnehaha Creek Watershed District

Objective

Provide network storage solution to accommodate current and future growth needs.

Overview

The data storage for MCWD is spread amongst multiple servers on the network. 2014/2015 application initiatives have created additional storage needs to the infrastructure. Veracity is proposing the implementation of a Direct Attached Storage Solution to provide centralized physical storage of all server dataset volumes. This solution will deliver performance integrity, greater risk management, as well as, accommodating current and future growth initiatives.



Thank You For Your Business!

* Sales tax, shipping and delivery not included unless mentioned in this document. A down payment must be received before the ordering of hardware/software. All proposals are subject to revisions following meetings, phone calls, etc.

QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	<p>PoweVault MD1420 DAS,Rackmount SAS, 24 Bay, (6) 1.2TB 10K RPM SAS 6Gbps 2.5in Hot-plug Hard Drives, PERC H830 RAID, 2Gb, Low Profile Raid Controller, 3 Year ProSupport and NBD On-site Service</p> <p>The Dell Storage MD1420 direct-attached storage (DAS) enclosures with 12Gb SAS throughput have been specifically engineered to work with the 13th generation of PowerEdge servers using the newest line of PowerEdge RAID Controller 9 (PERC9) 12Gb SAS cards. Scaling capacity behind innovative next-generation servers enables end-to-end 12Gb solutions with exceptional storage flexibility and IO performance for such applications as:</p> <p>High-performance databases Streaming digital media Storage-intensive applications</p> <p>Dell Storage MD1420 - Match your data requirements With twice the data throughput as previous generation enclosures and flexibility to mix and match NL-SAS, SAS and SSD drives, the MD1420 offers you a wide variety of options that can fit your exact specifications. Directly connect up to eight MD enclosures behind your PowerEdge server using a 12Gb SAS host bus adapter (HBA) or the PERC9 card. Provide up to 384TB maximum capacity (eight MD1400 enclosures, each with 12 x 4TB 7200 rpm 3.5" SAS HDDs) or up to 192 high-speed SSDs (eight MD1420 enclosures, each with 24 x 12Gb SAS 2.5" SSDs) for each server.</p>	\$9,888.82	\$9,888.82
6	Dell 8 GB Certified Replacement Memory Module for Select Dell Systems - 2RX8 RDIMM 1600MHz (A7990613)	\$174.99	\$1,049.94
	DownPayment		\$10,938.76

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20	Project Installation Services: Install additional 48GB of RAM in Host server. Prep and configuration of MD1420 storage appliance. Installation into the RACK and attach to existing PowerEdge virtual host server. Assign disk array storage to virtual servers. Assign roles and move applicable data to new storage arrays. Coordination and management of applicable vendors associated with this project	\$125.00	\$2,500.00
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(Total Technical Services is a good faith estimate; actual time will be billed at the specified rate.)	TOTAL BEFORE SALES TAX*	\$13,438.76
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Conclusion

If you have any questions, comments, and/or concerns please contact me at 952-941-7333.
Thank you.

Accepted by: _____	Date: _____
On behalf of Minnehaha Creek Watershed District	

Please Sign and Return with Down Payment for Processing

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