

**School Board Workshop:**

**March 8, 2010**

**Subject:**

Shared Services Project

**Presenter:**

**Josh Swanson and Wayne Hoistad, STMA**

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**SUGGESTED SCHOOL BOARD ACTION:**

Report Only

**DESCRIPTION:**

***Background and Rational:***

The Technology and Information Services (TIS) department has been working on building a redundant data center to ensure continuity of services and data security in the event of a disaster. We have now fully implemented the backup solutions designed for this use and they are fully functional and housed in our primary data center at Discovery Elementary School. Montrose Elementary School was the site initially determined for offsite data storage. We have not invested into building that data center yet.

Our Internet bandwidth use continues to rise with the addition of wireless networking across the district and an increase in technology use in classrooms. We anticipate this use will continue to rise sharply over the next couple of years and we need to position the district to expand its capacity in the future. We currently use Charter to connect to TIES with a 10 MB connection speed and Wright Tech as a redundant connection to CMERDC. We began to look at fiber connections to increase Internet bandwidth in the future and the I-94 trunk line is the closest.

The TIS department has successfully completed a proof of concept as we explore the use of Virtualized Desktops as a way to:

- Extend hardware lifecycles
- Reduce hardware costs
- Provide a secure environment for users to bring their own hardware
- Extend our services outside of our district
- Make support effective and efficient

A pilot is the next step to verify that the end user experience is sufficient. The concept of this project is very similar to what we have successfully done with our district servers. We can centralize and reduce the overall "horsepower" that is underutilized and gain great efficiencies, cost savings, and stability in the process.

I initiated a conversation with Saint Michael Albertville (STMA) in November 2009 after looking at our district needs and hearing what kind of needs they have. We believe that we

have a “Win-Win” project that will allow both districts to save money and improve our infrastructure for the future.

By connecting the two districts with an Optic Fiber Network and making a connection with the I-94 trunk we can utilize each other’s existing data centers as redundant sites. STMA’s primary data center is far more robust than what we could justify building as a secondary data center in MES. The money that we were going to allocate to the MES data center would be shifted to partially fund this project. This project will allow us to obtain up to 1GB Internet burst speeds in the future. This far surpasses what we have available to us at this time and would serve us well in the future. The fiber connection provides a direct 1 GB connection to the TIES data center which we can immediately use to support our Finance System, HR System as it comes online, and any additional TIES systems we choose to utilize. STMA is interested in virtualizing desktops for the same reasons we are, and this project will allow us to share costs as we both explore this tool. We believe there will be a great number of opportunities in the future by investing in the infrastructure now.

***Implications:***

1. Direct Redundant 1GB/100MB Connection to TIES using:
  - a. BHM Fiber
  - b. STMA Fiber
  - c. New Joint Build Fiber
  - d. Contracted Fiber
2. 10GB Fiber Connection Between STMA and BHM Data Centers
  - a. Reduced Cost to Implement Redundant Data Center
  - b. Higher Quality Redundant Data Center
3. Collaborative Effort of STMA and BHM TIS Departments
4. Reduced Cost of Virtualized Desktop Pilot for both districts
5. Future Growth Opportunities and Revenue Possibilities
6. Shared Services Agreement Created

***Financial Implications:***

To complete the MES data center would have cost the district approximately \$20,000.

The district receives eRate and Equity aid for investments in fiber and the hardware required to make this connection. We are reimbursed for a large percentage of the cost. The expenses below are after eRate and Equity aid is reimbursed.

The initial installation of the fiber will cost \$7100 in the first year. Our payment for the fiber over 5 years will be imbedded in our monthly Internet costs from TIES. The fiber portion of the bill will be about 35,000 paid over five years.

We anticipate a potential savings over four years of approximately \$35,000 through the strategic deployment of virtualized desktops. This does not factor in the gains we may achieve in effectiveness and increased possible use by staff and students. It only anticipates reduced cost/workstation/year for hardware and support time.

We anticipate this project will begin to generate savings for the district well inside of the five years. This could essentially pay for the network and generate future opportunities.

***Evaluation:***

Next year we will be looking carefully at the Virtualized Desktop Pilot and the efficiencies and efficacy of its use in the district. It will be one of the goals for both the STMA and BHM TIS departments and we will begin to get some hard numbers regarding actual savings for our districts.

The Directors of Technology and Information Services for STMA and BHM will review the Shared Services Agreement at the end of the 2010-11 school year to make changes if necessary and will review the collaborative effort throughout the 2010-11 school year.

***Next Steps:***

STMA had a contract with Charter through a 3<sup>rd</sup> party vendor. They are working on terminating that contract. Following confirmation the two TIS departments will begin joint planning. The fiber would be laid after the ground thaws and would be connected after the school year ends for both districts. The redundant data centers would be implemented immediately and the Virtualized Desktop Pilot would be initiated this summer collaboratively. The TIS Directors will be in contact at least monthly and the project will be evaluated in April 2011 to review the outcomes.

**ATTACHMENT(S):**

None