New Technologies Proposal

iMacs in the Computer Lab

Saint John Berchmans School

Megan Meade

**Needs Assessment**

Saint John Berchmans School is a Catholic Pre-K through 8th grade two building campus that serves approximately 250 students from the urban communities of Logan Square and the surrounding areas. In 2005, the Archdiocese stated that they would no longer subsidize the school because of the massive amount of debt that had been racked up over the years. The community, parents, faculty, and staff were determined to keep the school running. The Save Our School Campaign brought the parish and school together in a major effort to raise the funds needed to stay open. Hundreds of individuals made donations and parents and staff organized fundraisers. A few months after the Archdiocese said the school would be shut down, enough money had been raised to reduce the accumulated debt. The Archdiocese changed its decision and the school remained open thanks to the families, community members, and others.

Although the school is still in debt, it is thriving and growing. Each year since 2005, enrollment has soared. The money from this enrollment and the Archdiocese has been used to “fix” the two buildings. The school was close to falling apart and last year, a $4 million project was started to fix the roofs, tuck point, install new windows, etc. The only technological advancements over the past few years have been the addition of 36 new IBM computers and new Promethean boards in all rooms except for the four preschool classrooms and two kindergartens.

With this being said, Saint John Berchmans is in need of additional, up to date computers in order to promote stronger technology use in the school. As a school, we are looking to purchase 36 iMacs to ensure enough computers for each student per class and a few extras in case of technical issues. I believe that Macs are a great fit for school settings. They run less risk of crashing or obtaining viruses, provide a wide array of multimedia features, and are generally more user-friendly. From research I have done, Macs seem to be the better choice in a school setting and according to the network specialist at this school, they have come to the same conclusion.

This needs assessment is based off of completed survey results and the current technology integration plan from schools in the Archdiocese. There is a technology survey that has been sent out to all teachers and parents at Saint John Berchmans. This provides data on local school planning, technology budgeting, network infrastructure, hardware inventory, teacher technology skills and future plans. In this survey, we asked teachers questions such as:

1) How long have you been teaching?

2) How would you rate your overall skill in using educational technology?

3) Rate your interest and use on the following: blogs, webquests, wikis, podcasts, etc.

4) What technology professional developments would be of interest to you?

The parent survey asked similar questions, but not specifically focusing on a classroom setting. We also asked both the parents and teachers what software and hardware they currently use. From these results, our school gathered a great deal of information about the use, need, and interest in new technologies.

**Market Research**

After the needs assessment, it was determined that 36 new computers would benefit the school. This would be enough for every student in a class to have an individual computer for use during lab time, as well as additional units in case of technological issues and for the classroom teacher or monitor. Based on the goal of purchasing 36 new computers, several options were investigated. Since these computers would be placed in a current computer lab, the computers in question will be desktops. The current network infrastructure does not require upgrading, so computers and the required accessories are the only items we will be purchasing.

Based on the needs assessment, additional research, and discussions with the technology specialist at St. John Berchmans, we would ideally like to purchase iMacs for the computer lab. The market research will determine the feasibility of purchasing 36 iMacs with the current budget of $50,000. We looked into a range of cost options, starting with the higher-end models and moving toward the lower-end. Additionally, base PC prices were included to provide another option.

The higher-end 27-inch iMac, at a base price of $2,144.13 per unit including tax, would exceed our budget for the purchase of 36 computers with a total cost of $77,188.68. Each computer is supplied with the following:

* 3.1GHz Quad-Core Intel Core i5 Processor
* 4GB 1333MHz DDR3 SDRAM
* 1TB Serial ATA Hard Drive
* AMD Radeon HD 6970M 1GB GDDR5
* Apple Magic Mouse
* Apple Wireless Keyboard (English) & User's Guide
* Accessory Kit
* AppleCare Protection Plan

The lower-end 21.5-inch iMac, at a base price of $1,347.25 per unit including tax, would allow for the purchase of 36 computers at the total cost of $48,501. However, this is still close to the budget and does not provide much of a margin. Each computer includes the following:

* 2.5GHz Quad-Core Intel Core i5 Processor
* 4GB 1333MHz DDR3 SDRAM
* 500GB Serial ATA Hard Drive
* AMD Radeon HD 6750M 512MB GDDR5
* Apple Magic Mouse
* Apple Wireless Keyboard (English) & User's Guide
* Accessory Kit
* AppleCare Protection Plan

Currently the computer lab uses Lenovo computers and the school has been happy with them, so we researched the cost for new Lenovo PC’s as well. After researching on the Lenovo website, the 20-inch Lenovo C325 desktop computer at a cost of $1,097.99 per unit, would allow for the purchase of 36 computers at a cost of $39,527.64. This value includes the following with each computer:

* AMD Fusion E450 Processor ( 1.65GHz 1MB )
* Genuine Windows 7 Home Premium 64
* ATI Mobility Radeon 6310
* 6 GB PC3-8500 DDR3 SDRAM 1333MHz
* Integrated 0.3MP Camera
* 1TB 7200 Hard Drive
* USB Keyboard and Mouse (White)
* 2Yr In-Home Warranty Next Business Day
* Microsoft Office Home & Student 2010

**Results and Conclusions**

After researching the available computers in the marketplace, iMacs are the best fit for our school, our students, and our faculty. By purchasing the lower-end iMac computers, we are able to purchase 36 computers for the classroom. While the higher-end iMacs have a larger screen and better overall specifications, the lower-end model will be more than sufficient to handle the needs of the school. The Lenovo model that we researched was less expensive, but we feel that with the iMacs we will utilize all of the grant money and obtain the best value.

Some questions do remain as to the potential cost of installation and maintenance, and as to what the future holds for Macs vs. PCs. Will the use of Macs in schools continue to grow in the future? By purchasing Macs will we be sufficiently preparing our students for high school, college, and their careers? Would it be worthwhile to purchase a Windows interface on the Mac computers?

**Final Recommendations**

With the budget of $50,000, we have proposed to purchase (36) 21.5inch iMacs for the computer lab at Saint John Berchmans. The total cost for this purchase would be $48, 501, which gets us very close to the grant money budget. The iMacs in the new computer lab will be an excellent addition to our school and will be a significant improvement in the way of technology. The iMac is an excellent choice for this school (as well as schools in general) and includes, but is not limited to the following additions: useful hardware and software, built-in iSight camera and microphone, and wireless remote control. The table below shows the costs, specifications, and comparisons of the three desktops researched.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 27-Inch iMac (Apple) | 21.5-Inch iMac (Apple) | 20-Inch Lenovo C325 |
| Cost per Unit | $2,144.13 | $1,347.25 | $1,097.99 |
| Total Cost for 36 Units | $77,188.68 | $48,501 | $39,527.64 |
| Processor | 3.1GHz Quad-Core Intel Core i5 Processor | 2.5GHz Quad-Core Intel Core i5 Processor | AMD Fusion E450 Processor ( 1.65GHz 1MB ) |
| RAM | 4GB 1333MHz DDR3 SDRAM | 4GB 1333MHz DDR3 SDRAM | 6 GB PC3-8500 DDR3 SDRAM 1333MHz |
| Hard Drive | 1TB Serial ATA Hard Drive | 500GB Serial ATA Hard Drive | 1TB 7200 Hard Drive |
| Graphics Card | AMD Radeon HD 6970M 1GB GDDR5 | AMD Radeon HD 6750M 512MB GDDR5 | ATI Mobility Radeon 6310 |
| Warranty | AppleCare Protection Plan | AppleCare Protection Plan | 2Yr In-Home Warranty Next Business Day |
| Software | Native Mac Applications | Native Mac Applications | Microsoft Office Home & Student 2010 |

Total Cost for Specified Equipment:

|  |  |
| --- | --- |
| (36) 21.5-Inch iMac Units | $48,501 |