Marist College's ERP System

From PLUS to Banner

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I. Executive Summary

Marist College has been a leader and innovator in the area of technology. When their current ERP system PLUS was not functioning as Marist needed, they looked to hire a new CIO to take on this large project. Bill Thirsk's thorough background and previous success with ERP implementations made him stand out amongst the others who sought the CIO position. Since replacing the ERP system was an urgent matter, they knew they had to make a decision quickly.

After Bill was hired at Marist, he quickly looked into options that Marist could consider to be the provider of the new ERP system. While four were considered, only one met all of the qualifications that Bill had from the very beginning which was Sungard. Their Banner system had been implemented in many colleges across the United States and was highly customizable. It also was able to be put onto the mainframe that Marist already was using. The mainframe was state of the art technology that was not being fully utilized by the previous ERP system.

During the following three years, the Banner system was put into place section by section. Employees had to undergo intense training on the new system while completing their daily tasks on the old system. For a while, the two systems were run in parallel to ensure that the system had all of the functionality and more as compared to the old system. Overall, the project was successful and all involved were happy with the results.

While Marist wants to remain a leader in their industry, they have to keep up with current technology and analyze how they can be applied to the learning environment. They need to hold the current generation interest and since technology is ever changing, Marist has to change along with it. While the current ERP system is working well for the college, if a better, more cost effective one is found, Marist will begin utilizing that system because it has a higher return on assets.

I. Introduction

Marist College has been well known for providing a quality higher education through the use of technology to all individuals it serves. They do this through the use of a standardized and integrated ERP system called Banner. However, Banner had not always been in place; in fact it is relatively new. When Vice President and Chief Information Officer William Thirsk was hired in 2007, he knew immediately that Marist College would be at risk if they did not update the way they were handling their business processes. Providing a seamless experience in regards to technology for everyone was one of Bill's visions from the beginning. He also wanted Marist to be a leader in technology so that they could be a positive influence to others in their industry. This vision could only be attained through the implementation of an entire new ERP system for the Marist College community. It was a long process for some, but the results are promising and the college has been named a top leader for technology as a result of the new Banner system that was implemented.

II. Analysis of Previous System

The previous ERP system used by Marist was called PLUS. It was written in COBOL and was in place for about twenty-five years. The software it used was outdated and the publisher of the system was no longer supported. This put Marist at great risk because it was not receiving the proper updates needed to ensure the college's functions such as financial aid and tasks involving tax tables were being completed accurately. These two items change constantly and need to be kept up to date.

Two other major problems were the system was not integrated and it was not in real time. It relied on batch processing which would run every night. If a change was made, it was not reflected in the system for others to see until the next day. This was a problem as someone would have to make multiple trips if they were going to add a class because the finance department would not see

the change reflected immediately. The system had a centralized database, but the processes were not integrated and the database was not relational. There were a lot of duplications within the system as a whole which was not good because when looking up a specific person, sometimes ten results of the same person would come up in the query. No one would know which name was the correct name and therefore, information for that person would be spread out into ten different records which was unnecessary. Different divisions and departments used different software to complete similar tasks. If they did not change the way the business was being done through the use of Information Systems, it could jeopardize the future of the college which they could not let happen.

III. Choosing a Leader

William Thirsk was selected among a vast number of individuals to become the CIO of Marist College and the leader for the implementation of the Banner system based on several qualifications. First he had previously worked directly for the company that sells Banner and performed a lot of implementations of ERP systems so Marist felt confident that he had enough experience, knowledge, and skills to help the college choose the right system that would meet their needs. He also had the ability to lead the college in the area of technology so that they could maintain their status of being an innovator in the academic industry and a leader in technology that others aspired to be (Norton).

While working at Sungard, Bill was an outsourced CIO for many different companies. He worked on a contract for companies that did not have internal CIOs and advised them what technologies they should pursue that would help them meet their business objectives and speed up their business processes to make them more efficient. From this, he gained a lot of experience working with different companies and universities and could relate this experience to Marist. Everyone felt that Bill was the right candidate for the job as CIO. Because Marist needed a new

ERP system at the time Bill was hired, it was even more of a reason to select him over anyone else (Norton).

Bill is not only the CIO of Marist, but also holds a Vice President title as well. The CIO title alone is an administrator title that means Bill is responsible for a particular area of the college; that being technology. The Vice President title means he is involved at the cabinet level and is involved in the strategic focuses of the college which enables him to see outside of the technology area into the college as a whole. This will better enable him to suggest technologies in the future that will be aligned with the strategic plans for the college and ensure that only investments are made in technologies that will be beneficial to the college on a large scale (Norton).

IV. Choosing a Provider

As mentioned before, Bill's main priority after he was hired at Marist was to institute a new ERP system for the college that would maintain standardization and incorporate integration which the previous system was lacking. This transition began with a seven month investigation process where companies had to bid against each other to become the provider of the new system. There were four possible providers that Marist had looked into. The three commercial providers were PeopleSoft, Datatel, and Sungard. The other was an open source provider known as Qually. There were three important items that were being bid against between the possible four providers. They included: low cost for implementation and maintenance, providing research licenses for modifications and be able to run on the current mainframe, and support for participation of user groups.

There were several elimination phases in the seven month period before finally selecting a provider. The first elimination was Qually, the open source provider because it lacked a financial section. It was very important that it have this as the old system had it and all of the college's

processes would rely on this section. It is a main function of the college and without it already built in, Marist would have to spend extra money to have it integrated. Ultimately, it was not worth it if other options were available. PeopleSoft was eliminated next because of its high price of $20 million. In addition to that, it did not offer any research licenses, and only their own hardware would be able to be used. Since Marist had state of the art hardware called the IBM Z9 mainframe, they did not feel the need to spend extra money on a new hardware platform. Next in line was Datatel. They too did not provide a research license and did not work on a large scale. They also had their own proprietary database. Marist wanted to use Oracle instead. Although the cost was relatively low, it still did not meet the requirements that were specified in the beginning of the selection process. Marist tried not to compromise too much with their specifications that they listed in the beginning since they knew they needed those items to be successful (Thirsk).

Last, but not least, was Sungard. They had a low price of less than $3.5 million, provided a research license to change the software to run on any platform which was important to Marist since the mainframe was run on ZLinux. Another positive aspect of Sungard was they are part of the Community Source Project in which Bill is the chairman of. Sungard was chosen because it did the most for the college at a relatively low cost. Sungard had a package available called Banner Digital Campus, which is what Marist ended up purchasing along with an eLearning package to accommodate the future of a diverse population of students located around the world. The strategy used in this selection was ultimately brought down to who had the lowest cost and could provide Marist with all of the essentials it needed for the new system. Software, training, and the research license were all provided for less than twenty-five percent of the highest bidder which was PeopleSoft. This was the perfect opportunity for Marist to get what they needed so that they could continue to be a leader in technology (Thirsk).

V. Development

From the beginning, Marist needed to ensure that their business processes were aligned with the Information Technology that was being used. In this case they needed to make the best use of the state of the art main frame that they owned. There was a great need to identify the processes, data, and interfaces before even beginning the transition. The list of modules was similar to those in the old system except these would now be integrated so that someone from one department could instantly get information from another department. The modules would include finance, alumni development, human resources, financial aid, and the student section. Since this was an entirely new system, the developers did not have to worry about making certain parts compatible with the old system. This eliminated a great deal of risk that would have been present if the system was just an add-on to the current one.

Marist worked with two schools in the surrounding area and schools a far in developing the Banner system. Since Vassar College implemented Banner before Marist did, they chose to work closely with them to see how everything tied together. However, Marist is much more capable in terms of technology than other colleges so they really were just looked at the process used, not necessarily the technology. Advice was sought on different modules from different colleges on how to implement them and their functionality. Since some colleges were already using the Banner system, it made sense for Marist to research and explore what they had done so that they could eliminate any pitfalls that they might have come into contact with throughout the development process (Norton).

During the development process, Banner was modified to run on Linux and ZLinux. It was standardized on Linux first and then moved to ZLinux to run because it was a faster platform. Without the research license, this would not have been able to be done. Since the mainframe used

ZLinux, the system had to be written in such a way that the mainframe would be able to run it. The research licenses were for the framework, but the processes had to be invented or programmed to meet the specific needs of each department. These processes then had to be integrated with each other so that they could get information from any section of the system that was needed. A business process review was conducted for every department so it was clear what tasks they did. The system could then be programmed in such a manner that it will do all of the necessary work that the old one did, but with greater functionality (Thirsk).

VI. Implementation

When implementing a large Information System, the two options that an organization has are either a cut over all at once or a cut over in sections. A cut over in sections is usually preferred and has less risk associated with it. The Banner system was implemented in modules, first with finance because it was the most important and everything else relied on it. As each module was implemented, employees had to use both the old and new system for a while to ensure that when the cut-over occurred, there were not going to be any major problems. The project came in under budget and on time which is very important since it was such a big project and many things could easily go wrong (Thirsk). There are not many projects one does that they can say they would not change a thing if they had to do it all over again. People were generally happy with the system and the fact that only a few minor issues were experience throughout the entire process. This helps a great deal when everyone's support is there because they are more likely to welcome the new system and see the benefits it has instead of continuing to use the old one.

VI. Training & Flexibility

As stated before, the new system called Banner was an entirely new system. There had been cut overs for the system within the three years. During the process of the system's construction,

there were some issues regarding scheduling and resources. However, they were able to be ironed out and did not impact the system to a large extent. Everyone was responsible for their normal jobs at the same time when the new system was being implemented. Therefore, like anticipated, there was not any downtime. However, training was necessary and had to be balanced in with normal day to day operations (Thirsk).

Training was constant and persistent. Over six thousand hours were invested in training and at any given training session there were between fifteen and twenty-five people present. Everyone was trained in three different areas. They were trained on how the system looks in general; basically user functionality and navigation. They were then trained on their specific module and how it worked so that they would be able to do their job better. After this was done, they were trained on how their module interacts with the other modules. This is known as cross training. It is helpful to know how the modules are linked together and integrated so that information can be attained from them quicker. Users need to keep seeing the new system constantly and interacting with it so that the flaws can be ironed out before the system is rolled out. It is also important to be able to see the connection between the different sections that was not present before in the previous system (Thirsk).

The new system is very flexible, much more so than its predecessor. There is a processing module for any type of situation which is customized through rules to work how it needs to. The framework has not been changed, but it can be tailored to work how they need it to work in any given situation. Therefore, changes in the system can be accommodated since it is assumed that the system will need to be altered throughout the years to meet the changing needs of Marist College (Thirsk).

VII. Recognition

Marist has also won a number of national awards for their innovative use of technology. The NACUBO award was an innovation award that was given to Marist for putting the ERP system on the IBM Z9 mainframe. This ended up saving the college a couple of million dollars. Marist has been asked to speak about their use of technology in particular the Banner system and how it is has positively impacted the college community as a whole (Thirsk).

Since Marist College was the first college to put the Banner system on a mainframe, they wanted to sell their idea so other colleges could use it. University of Saudi Arabia recently bought into the idea of putting an ERP system on a mainframe. They needed a very robust system to support the one hundred thousand students in their system. While most companies implement an ERP system on several small servers, the University of Saudi Arabia would need dozens of servers to manage the volume that they have. These would require maintenance and services. It would make sense to put everyone on one mainframe so that is the only thing that would need to be maintained. In addition, a main frame can withstand just about anything. If a crash were to occur, it would most likely be associated with the software that was being used and not the mainframe itself (Norton).

VIII. Return on Assets

It is very difficult to come up with a way to measure the return on investment for such a complex system like Banner, especially because there is not any monetary compensation received from its use. Therefore, instead of looking at the new system and giving it the term return on investment to describe how much success the system has been for Marist, Bill chooses to look at it as a return on assets. There was integration, more efficiency, and those who provide services do not have to spend as much time on data choices. The old system did not integrate programs. Money has been saved by using the assets the way they are instead of replacing them with some other type of technology. If the technology is good and can withstand growth and maturity, then it is worth

keeping. The mainframe was not fully used before Banner was implemented. However, now they have full utilization of this asset and it makes it worth more since there is not space wasting that could be used to make the system run more efficiently (Thirsk).

It was also noted that although ERP systems usually last for ten to fifteen years, if a new system came up next month that provided a higher return on assets, Marist would switch to that system, even though the current one is not even close to being ten years old yet. This is because the return on assets is so valuable to the college. It is important to get the most out of the hardware including usage of space and speed. What might be considered appropriate one day, might be replaced by something better the next. It is also important to be able to analyze the different options out there to ensure that Marist is getting the best technology that will best suit their needs (Thirsk).

VII. Future of Marist

Marist aims to stay on top of technology in order to maintain their competitive position in the college market for the future. There have been thoughts of possibly having mobile applications added to the current Banner system so that students can view their information from any place at any time. Such operating systems that would be considered for more mobile applications are Android, iPhone, and Windows Mobile. Banner allows mobile applications to be easily implemented. As smart phones become more and more popular among the younger generations, it would only make sense to incorporate their educational experience through the use of these phones. The integration of mobile applications on the previous system would be quite challenging and perhaps not even possible to do at all.

Social networking is constantly growing and could be used for instructing and the viewing of digital content. This could stimulate user interaction as well as utilizing virtual reality (Thirsk). Perhaps a class in an online environment could meet in a virtual reality setting where students can

pick their own avatars that represent who they are so that students and faculty can get to know each other on a more personal level.

Bill pointed out the importance to remain savvy to how current generations learn so that he can feed into as many ways that will hold their attention and make their academic experience better. Because of the ever changing technology, it is tough to have a solid vision for the future. Visions change over time due to external and internal environment factors that are sometimes beyond one's control. With each new generation and social upheaval, there are constantly new inventions of ways to communicate. Those ways need to be investigated to see if there is some way to be able to tie them to the academic world for use in a classroom setting (Thirsk).

VIII. Conclusion

Therefore, Marist was able to successfully implement an ERP system that standardized and integrated the business processes to make it easier and quicker to get information. Bill Thirsk's background in ERP systems and previous experience contributed significantly to the success of the system. Since the Banner system is flexible, in that it can accommodate additions easily, Marist needs to take advantage of that. It is important to keep up with current technologies and to integrate them into the learning experience for all so that the engagement of the students is very high. In order for Marist to be a leader and innovator in technology, they need to be able to analyze and explore new technologies as they arise and figure out if they can be used to make the college better for the future.

Works Cited

Norton, Roger. Personal interview. 15 Nov. 2010.

Thirsk, William. Personal interview. 21 Oct. 2010.