

The Frustrations, Pitfalls and Rewards of Implementing a Campus Card System

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Introduction

In the summer and fall of 2006, Roanoke College implemented the OneCard system from Blackboard which has allowed students to use their college ID card as a debit card on campus; a meal plan card; library card; bookstore/financial aid card; and to allow access to the dorms and fitness center utilizing an imbedded radio frequency chip. Future plans include the use of the card with area merchants through Blackboard One (fall 2007) and to allow access to remote events on campus using wireless handheld readers. We did not implement a “turnkey” solution since we already had several system components in place, including door access, ID Works, and Blackboard Learning and Content Systems; therefore, we experienced unique issues when bringing the systems into a single solution.

Process:

The initial meetings with the sales reps from Blackboard began in the fall of 2005. The plan was to have the OneCard system running for the fall semester of 2006. (We renamed the program to be known as the Maroon Card since the Roanoke colors/mascot is the Maroons.) After the initial sale was completed, we began the technical process in January 2006 with an onsite visit from the Blackboard project manager. She verified that our facilities, network and current administrative system (Datatel) met requirements for the new transaction system. This initial site survey also included a detailed meeting with department heads that would be involved, including dining services, business office, campus safety, bookstore, information technology, student affairs and the library.

Issues:

During the following months, as we moved through this process, we experienced many issues. Some of these were due to the fact that we were not implementing the turnkey solution that Blackboard offered. Some issues arose due to Blackboard and 3rd party vendor’s lack of knowledge with customizing the product for our environment.

1. Integration with MBS (Missouri Book System):

MBS claimed from early in the project that they were certified to integrate with a Blackboard Transaction system that was Windows based. However, late in the project (July 2006) and af-

ter many hours of frustration and escalation of the issue through several levels at Blackboard and MBS, it was determined that MBS was not certified for Windows and they in fact had to modify the programming “on the fly” in order to make the systems work properly. We were later told that we were the first “live” site to use MBS with the Windows version of Blackboard Transaction system. This integration finally occurred 8 months after we were told that the systems would work seamlessly and in fact was not implemented in time for student check-in.

2. Majority of Blackboard Transaction customers are UNIX based:

Blackboard is currently moving all users to Windows systems, so we were ahead of the curve but therefore we also experienced many issues not faced by Blackboard up to that point in time. Most of their customers are currently using the transaction system product in a UNIX environment, therefore their product and customer support was greatly lacking when we were going “live”.

3. Single sign-on:

We wanted to have single sign-on capabilities through our portal so that students could authenticate to the Community System/Transaction System at the same time as they logged onto the portal. However, according to Blackboard this requires a single server, which sounds nice but it is a more expensive way to go from a cost standpoint. This is because Blackboard recommends that the Community System be on a separate system from the Learning and Community systems. However, this would require us to maintain multiple databases. Therefore, we requested that these systems all reside on the same server to allow for better integration. Since, Blackboard does not support this configuration we had to pay more for this sort of setup. In the end it has worked well with some issues arising when upgrades need to be done to the Learning and Content Systems. For instance, our settings for credit card transactions and merchant numbers get erased and need to be reloaded when upgrades are implemented.

Note: For clarification, the Community System allows students and parents alike to add money to a student’s card. The Transaction System allows for the student to make purchases on campus. We use the complete suite of Blackboard products; however, the Community System resides on the same server as the Learning and Content Systems while the Transaction System is on a separate server.

4. Integrating systems:

We already had a door access systems and use Datatel, so we needed to have certain customizations completed in order to allow for integration with Blackboard. For instance, we purchased a software integration agent from Blackboard called Building Blocks. These items would pull data on a set schedule from Datatel and populate the Transaction System, ID Works and Best door access systems. However, it became apparent that the integration did not work as seamless as it was advertised. For instance, we already had ID Works set up how we wanted it to process and print cards. This caused issues when the Building Block agent would run because it attempted to overwrite our changes. Secondly, the integration with Best was not part of Blackboard suite as we had been told initially, so we had to contact Stan-

ley/Best on our own and get last minute support. Due to the late date (July 2006), Stanley/Best could not offer support until sometime in late September. This was not acceptable, so they did offer some minimal support to get me going with their integration product but I was left to make it work. Not being a fulltime SQL Server administrator made this even more challenging. I spent many hours of testing, troubleshooting and building automation of the Stanley/Best product to work with ID Works.

Finally to utilize wireless capabilities, we also purchased Sequoia handheld devices from Blackboard. However, due to some additional setup/programming issues, these devices did not work until at least 4 weeks into the semester. The fix was quick but getting Blackboard or Sequoia to take ownership of the problem took several weeks.

5. Training:

We had a training session for all the cashiers, department supervisors, and the “core” team that implemented the system in late May, but in hindsight this was too early for some and too late for others. We should have conducted the training in two sessions. The first should have been held early in the process for those that needed to have a deeper understanding of the project and the second session much later for the cashiers and supervisors. We should have conducted the final training after all the kinks had been worked out and maybe only a week before the official rollout. Due to the timing of the training we found ourselves, retraining the cashiers and administrators when the system went live. By having a single session we found that the training was also not geared towards the proper audience at times, so some department supervisors became lost in the information. Others, like the cashiers did not need to know all the intricate details of reporting.

6. Public Relations and Promoting:

We planned a public relations campaign but due to several delays in the rollout, it may not have been “talked up” enough. Also, at least one department (dining services) took the opportunity of this new service as a time to change prices on their meal plans. This led to some hard feelings among students and even staff who perceived this new system as the reason for the price increase and not seeing the value of the new Maroon Card.

Lessons Learned:

From our implementation we learned the following:

1. You can never start the planning process too soon. Plan for delays. Plan for the worst but expect the best.
2. If your staffing abilities and budget allow for it, try to conduct as much of the setup of the system “in house”, especially when setting up the profit centers, reports and other business rules. We find now that we must wait for Blackboard support on many items that we may otherwise be able to fix ourselves.

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3. Have a good public relations campaign that is well in advance of the project implementation. This will help build excitement and anticipation. Overall there has been a very positive response to the new card system by the entire campus community.
4. Offer separate training sessions: One early in the implementation process for those that will be the “core” team and first line of support for the system. Follow this with a much later and more basic overview, cash register and report training just before the rollout of the system. This second session would be for the department supervisors, cashiers and other personnel involved with reporting, bookkeeping, etc.
5. Do not allow departments to change pricing at the same time as the implementation of this new program unless it is well publicized and in advance.
6. Do not involve too many extraneous people. As our project progressed it became apparent that many of these departments did not need to be involved on a regular basis and in fact many were more overwhelmed with the process than anything else. The main areas that needed constant communication were information technology and the business office. Without these two departments, none of the other areas would be able to use the system. This is because you can't use the transaction system without money and accounts and nothing can communicate without information technology.

Positive Results and Future:

This project had many pitfalls that with better information and planning may have been avoided. However, overall the implementation has been very positive on campus, among the students and staff. We are planning to promote the use of the wireless Sequoia scanners more this year by the student activities area and dining services. Future use of these devices could be for the bookstore to have a remote location as well during student check-in. We are now ready to move onto the next phase of the program by working with Blackboard in offering off campus vendors the ability to accept the Maroon Card. Some vendors such as CVS already have national accounts with Blackboard but other local vendors may not be familiar with the product.

Conclusion

In conclusion, Roanoke College has had a successful but at times frustrating implementation of the Blackboard OneCard product. However, with dedicated staff we have been able to work through many of the issues and even offer other schools advice as they look to move to a similar implementation. Reports from Blackboard show the value of the card system because it can reduce merchant credit card fees and capture more revenue from the students, especially if off-campus revenue can be captured through Blackboard One, but implementation must be thought-out if it is to be successful.