

To: President Gamble Business Process Review Oversight Committee	From: BPR - Accounts Receivable Team Diane Allen (Leader – Bozeman) Bonnie Holden (Bozeman) Loreen Phillips (Bozeman) Nancy Powell (Bozeman) Sandy Taylor (Bozeman) Kathy Sobrepena (Bozeman) LeeAnn Gleason (Great Falls) Bill Byars (Billings) Crystal Kinsella (Havre) Michelle Burchard (Havre)
Date: February 16, 2007	Document Number:

MSU Business Process Review Business Case: Accounts Receivable Team

Accounts Receivable – Recommendations: Web Payment/Cashiering

The Accounts Receivable Team recommends the continuation and completion of implementing web payment, using credit cards and e-checks via Nelnet QuikPAY four campus-wide solution to enable students and authorized payers to pay tuition and fees on-line. Web transactions will be extended to other areas of the campuses once the web payment for tuition and fees has been successfully implemented.

The university should monitor the costs associated with web payment, reviewing fees charged for the service to be sure that costs are covered. During our conversations with other universities, we discovered that most other schools had experienced an increase in usage and resulting credit card merchant fees once students could pay tuition on-line. During benchmarking, we also discovered that most universities do not charge a convenience fee for e-check processing, so that the extra fee when paying smaller charges or fines does not deter students.

The AR Team feels that web payment (credit cards and e-checks) will increase efficiency of the payment process for the student and authorized payers by allowing payments to be made 24/7 remotely. This in turn will increase the efficiency of the Accounts Receivable Office, both in employee time spent and in reduction of errors by eliminating the manual process. Web payment will also increase the security of credit card information, as all credit card information will be stored on the Nelnet server.

A. Introduction

1. MSU Business Process Review

The four campuses of MSU were invited to participate in a business process review of all administrative and financial business processes.

There were several strategic objectives:

- develop a single process to be used by the four campuses,
- have a consistent set of definitions for all data elements, and
- improve institutional and system efficiencies and effectiveness.

Each of the processes will be:

- Redesigned,
- Modified, or
- Remain unchanged.

Each process will have a business case and cost benefit analysis to support the final recommendations.

The investigation and development phases (Phases I and II) occurred during 2006. Implementation of approved recommendations will occur during 2006 and 2007 in alignment with business cycles and resource availability.

Web Payment

Web Payment is the process of accepting payment for tuition and fees electronically, using a credit card or e-check. Web payment is being implemented beginning Spring 2007.

a. Summary of Accounts Receivable Processes to be Redesigned or Modified.

Process Title	June 28th 2006 Recommendations
Cashiering (Web Payment)	Redesign
Student Fee Billing	Redesign
Refunding	Modify
Non-Student Rec.	Modify

b. Business Process Review Objectives

President Geoff Gamble's letter to the MSU campuses focused on six major desired outcomes of the BPR project:

1. A strategic effort to enhance all of the University's business processes that fall under the general umbrella of Administration and Finance operations.
2. Establish a University wide information system based upon a set of common, standardized data elements and business processes used by all campuses and agencies.
3. The BPR teams will review all processes and develop a standardized design for all data elements and business processes which will be selected for President Gamble's final approval.
4. The BPR outcomes will be a visible example of a more operationally consistent Montana State University.
5. MSU will enjoy a higher level of efficiency and effectiveness throughout our administrative operations and information systems
6. MSU's commitment to the Board of Regents in support of their Strategic Goal III – Improving institutional and system efficiency and effectiveness.

These six major strategies can be translated into six subordinate strategies or tactics that can be identified and measured for many of the individual processes to demonstrate achievement and accountability:

- Improved institutional and systems efficiencies and effectiveness:
 - Single process across four campuses,
 - Data consistency,
 - Quality process,
 - High level of customer service, and
 - Timeliness of product or service delivery.
- Reduction of paper based transactions.
- Improved records management.
- Improved technical functionality.
- Development of Business Continuity Plan.
- Implementation of Front Office/Back Office concept.

Web Payment Process Objectives

- Improve customer service
- Improve efficiency of payment processing
- Reduce waiting times and lines at cashier's window

- Reduce the need for temporary staffing during peak payment times
- Increase the security of credit card information
- Reduce the errors in manually processing credit cards and checks
- Reduce complaints

c. Scope of This Case

As proposed by President Gamble, the BPR project will review all administrative and financial processes across all four MSU campuses. During 2006 BPR Teams collected and analyzed data as part of the assessment and recommendation periods, being Phase I and II respectively. Implementation will occur during 2007.

It was assumed that since the BPR project could only make recommendations pertaining to administration and finance policies and procedures, any investigation would be contained to within central administration and finance departments. Cost benefit analysis will include estimates for the whole organization based on detailed analysis in central administration and finance, and extrapolated analysis of other departments.

Recommendations pertaining to other Divisions, for example, Student Administration, or Office of Sponsored Programs, could be made based on the Administration and Finance Division data collection and analysis. The implementation of such recommendations would be determined by the Executive of these other Divisions.

Web Payment Scope

Web Payment will improve the efficiency of the Cashiering Process and provide a more convenient and secure method of payment for students, parents and other parties involved. We anticipate an increased usage of Web Payments as more payers become aware of its convenience.

2. Business Process Review Business Case Purpose

This business case is to provide an overall project perspective and high level recommendations to the Oversight Committee, and in turn, President Gamble, to seek approval for Phase II recommendations, and development and approval of Phase II implementation plans and timeframes.

Web Payment Purpose

Web payment is the utilization of technology to provide the ability for customers to pay for goods and services via the internet. This means providing an internet service to enable the students and their parents to pay for tuition and fees, either with a credit card or an e-check, in addition to being able to pay by credit card or check at the Cashier's Office.

3. Background

At a very high level, the background to the MSU Business Process review is based on:

- a commitment by President Gamble to the Board of Regents to improve the institutional and system efficiency and effectiveness of MSU, and
- addressing issues that were identified by the Pappas Consultants being:
 - decision-making lacks a system wide perspective,
 - inefficient business processes,
 - suboptimal use of technology, and
 - operational information, expertise and best practices are not systematically identified and shared across MSU Administration and finance organizations.

Web Payment Background

Historically, tuition and fee payments have been made by processing checks and credit card payments manually at the Cashier's Office. In a survey of MSU students, almost 70% of the respondents indicated they would be likely to pay via the web, if available. It is anticipated that the provision of a wider window of opportunity to pay will encourage earlier payment of accounts and potentially provide another tool to manage bad debts. Payment for tuition and fees using credit cards has increased across all campuses every year.

a. Problems and/or Opportunities Addressed by Business Process Review

- Opportunities presented by BPR to address problems identified through the Pappas Review process include:
 - Single process across four campuses to promote efficiency, succession planning, training, and improved ability to meet peak demands.

- Data consistency to improve the reliability of management reports both from an individual campus perspective and a comparative, cross campus perspective.
 - Quality process to improve quality, reduce error rates and improve the targeting of training and reference materials.
 - Improved timeliness of product or service delivery thus improving ongoing process efficiency.
- Reduction of paper-based transactions will reduce the costs of paper, usage and associated costs of printers, cartridges, and photocopiers. In addition, there is an opportunity to improve records management by moving towards electronic transactions, irrespective of whether document imaging is implemented.
- Improved technical functionality by implementing Banner functionality that MSU already owns, but has not implemented, as well as potential to purchase and implement other IT enhancements subject to budgetary constraints.
- Development of Business Continuity Plan (BCP) based on a risk assessment of improved processes. A BCP will also link in with an IT Disaster Recovery plan.
- Implementation of Front Office/Back Office concept. This concept was proposed by the Pappas consultants where the client interface still occurs on a face to face basis with the client dealing with “their” own campus. Any transactions that do not include a face to face client interaction, a “moment of truth”, can be processed at any campus where there are available resources. This will improve overall efficiency and effectiveness and smooth out resource demands across the four campuses.

b. Connections to other Projects/Products or Programs

The BPR project has ongoing links with:

- Business Continuity Planning
- Disaster Recovery Planning
- Pre-Disaster Mitigation Planning
- National Industry Benchmarking
- BPR Student Administration (future)
- Potentially, The Baldrige Award (future)

c. Current Problems or Limitations

Current problems or limitations include:

- Financial constraints on:
 - Implementation projects
 - Purchase of IT enhancements
 - Human resource availability
- Different cultures across the four campuses
- Change management issues – resistance to change

d. Other Important Historical or Situational Information

Extra staffing is often required during Fall and Spring Semester Fee payment time. The Billings Campus utilizes an “arena” set up and uses other office personnel to accept payments. The Bozeman Campus historically has hired four to five temporary staff members to process payments. Other departments within the University Business Services Office are also impacted because they are called upon to answer the telephone and take payment information.

Manual credit card processing provides more opportunity for error. Credit card data is now processed independently from Banner input, which can result in misapplication of payment, causing poor customer service.

B. Methods and Assumptions

Phase I:

The Accounts Receivable data collection began with a high-level review of salary costs and a physical documentation of the paper flow. Costs were captured through Work Distribution Data Collection Sheets, which were completed by each individual campus. The physical documentation was captured through Process Model – flowcharting software.

At the completion of Phase I, the Accounts Receivable Team analyzed all high-level data using Work Distribution Analysis and reviewed the Process Model charts to create Phase I recommendations. Phase I recommendations were approved by the Oversight Committee in June and the Accounts Receivable Team moved forward with a detailed review of the credit card payment process on all four campuses.

Phase II:

More detailed credit card processing data was collected during Phase II through employee visits, weekly conference calls, face-to-face meetings with all team members, refined Work Distribution Data, performance metrics and flowcharts.

This business case encompasses an overview of all data collected during the BPR process and the resulting recommendations. All documents collected/created have been compiled into one comprehensive package.

1. Financial Metrics

The BPR business case used the Cost Benefit Analysis showing incremental cash flow beginning in July 2007 through the next five years.

To analyze the cost/benefits, a summarized report showing the total number of credit card and check transactions and receipts was generated from Banner for each of the campuses during FY06. In addition, the total cost of correction errors was calculated for each campus using this same period.

2. Business Case Scope and Boundaries

The Accounts Receivable Team collected salary and processing costs from each of the four campuses. The Cashier Data Collection focuses on the steps taken for a cashier to enter a credit card or check payment starting with the initial receipt of the payment via phone, email or fax through generating a payment receipt from Banner.

With Web Payment, these steps will essentially be eliminated since the student or authorized payer will initiate the payment and Nelnet QuikPAY software is integrated with the Banner software and will automatically post the payment into the Accounts Receivable system using the RTPN (Real Time) processing. The payer will receive a confirmation number from the QuikPAY site which will be posted into the Banner A/R system. This confirmation number can be used to facilitate the reconciliation process. Since the student or authorized payer will be making the payment and not the cashier, this should lessen any errors which can occur when cashiers are entering a high volume of payments during a condensed timeframe.

a. The Analysis Period

The analysis period for each business process needs to be evaluated over a five-year timeframe from the date of completed implementation. For example, on the assumption that the last part of Phase II included the development of an implementation plan, policies and procedures, documentation, and a training program, then the date of implementation would be a predetermined date after everybody had completed training.

The Accounts Receivable analysis period included a review of the FY06 costs with the current process of handling credit card payments as well as projected costs for the next five years once web credit card processing has been implemented. Costs are based on three terms of the academic year.

b. Geography or Location

The BPR recommendations, in the majority of cases, will be for implementation across the four campuses. Only in exceptional cases, where it would be inefficient to implement the same process in all four campuses, will a multiple process be recommended.

Recommendations need to take into account the principle of front office/back office to achieve optimal efficiency and effectiveness as well as ensuring a high level of client satisfaction with face to face interactions.

The analysis will take into account the costs and benefits from each campus as well as a whole-of-organization approach.

The Accounts Receivable Team recommends the implementation of identical web credit card and e-check procedures across all four campuses. This will enhance customer service issues when students are transferring between campuses. The 'look' of QuikPAY will allow each campus to keep their own identity by using their campus-specific logo and text messages. However, the process, convenience fee, detail codes and source code are the same within the Banner and Nelnet QuikPAY system. The Team also recommends the continuation of web payment for other areas of the campuses once web payment for tuition and fees has been successfully implemented.

c. Organizations

The organizations covered by this business case include the administrative and finance processes across the following:

Montana State University

- Billings campus
- Bozeman campus
- Great Falls campus
- Northern campus

d. Functions and Positions

The recommendation made in these business cases will apply to processes and functions that fall under the central administrative and finance portfolio. To the extent that other departments operate under administration and finance policies, these recommendations will directly affect these departments.

The Accounts Receivable Team for the BPR review focused on the VP A&F process only at this time as it was specific to student/parent payment of tuition and fees.

e. Technology

Technology enhancements may range from photocopiers and scanners to software, supporting hardware and IT resources. The scale of IT enhancement may range from small, immediate acquisitions to larger enterprise wide enhancements with a phased in implementation over several years.

The Accounts Receivable recommendations for web payment do not require additional technology beyond what has already been purchased to install the software system. To date, a single server has been purchased as the Nelnet QuikPAY gateway. IT personnel costs have been figured into the overall implementation and on-going maintenance costs. Training and testing of the new web payment system was included in the RFP process as part of the software implementation and has already begun for all four campuses.

3. Scenario Design

Each Redesign process will provide a full business case proposal supporting the recommendations.

If the Redesign recommendation includes IT enhancements that may, or may not, be funded, the recommendation should include a comparative scenario between the preferred recommendation (IT enhancement) and a contingency or transitional approach.

Any modified recommendations can provide an initial concise business case to support the modification recommendation but must have a full business case prepared at the end of Phase II.

As Accounts Receivable representatives from all four campuses are already involved in the testing and training of the new web payment software there should be no need for a phased-in approach to web payment. A soft roll out is planned for Spring 2007, and a complete roll out with advertising for Fall 2007. All campuses are currently accepting credit card payments for tuition and fees and will continue to use the procedures already established until web payment is implemented.

Resources already have been expended to purchase hardware, software, and to contract with Nelnet. The project is in the final stages of implementation.

4. The Cost Model

The current credit card processing procedure requires several actions—generating paper forms, manual entries to both the Credit Card Machine and to Banner, and disposal of sensitive credit card information.

The Accounts Receivable Team collected salary costs for all actions mentioned above specific to credit card payments. These costs were evaluated using the present case (manual processing) scenario and the new case (web payment) to determine whether there would be a cost savings by implementing Web Payment. The implementation of Web Payment should result in a cost savings of cashier costs because temporary staff will not be needed during peak times. The implementation of Web Payment will not result in a net savings of merchant fees, but the assessment of the \$10.00 convenience fee will help offset the merchant fees and other costs associated with software maintenance. The off-setting benefits of improved customer service and security enhancement is a significant benefit to Montana State University.

5. The Benefits Rationale

The biggest benefits of Web Payment include:

- Increased data integrity and accuracy
- Increased efficiency and security
- Improved customer service
- Improved student/parent satisfaction
- Single process on all four campuses

- Convenience fee revenue
- Reduced data entry errors

Performance Measures:

The Accounts Receivable Team recommendations include continued monitoring of the number of credit card transactions processed and the costs associated with Web Payment. Such information will be helpful in determining the adequacy of our current convenience fee charges.

6. Data Structure

Costs of fee payment methods (credit cards and checks) for FY 2006 were compiled from all four campuses to determine current processing costs.

7. Data Sources and Methods

All data was collected using work distribution data from employees, process model data, a customer survey, performance metrics and various focus groups.

a. Data Sources

- Work Distribution Chart
- Process Model Flow Charts
- Formal Customer Survey
- Face to Face Focus Groups
- Performance Metrics

b. Methods for Estimating Costs and Benefits

The Accounts Receivable Team used Cost Benefit Analysis to determine costs and projected savings.

8. Assumptions

The Cost Based Analysis was based on the assumption that 60% of future credit card and check payments will be made via the web. This percentage is based on the overall breakdown of the credit card and check payment transactions processed during a one-year period. During this period, 40% of the payments were for amounts of \$500 or less. The A/R Team used this breakpoint assuming students and authorized payers were not likely to pay the \$10 convenience fee for amounts less than \$500.

The Accounts Receivable Team made the following assumptions:

- All campuses had opportunities for increased efficiencies
- A Web based process can be achieved
- Electronic Payments will be utilized
- Credit Card usage will increase

C. Business Impacts

The Accounts Receivable Team recognizes these business impacts:

- Reduction in staffing costs
- Recognized merchant fees costs
- Increased customer satisfaction
- Convenience fee revenue
- Reduction in error correction
- ITC software and maintenance cost

1. Analysis of Results

Total Credit Card and Check Transactions for Fall 2005, Spring 2006 and Summer 2006 and anticipated Convenience Fee Revenue and Merchant Fees

	Fall '05, Spr '06, Sum '06				
	Total Credit Card Transaction Count	Anticipated Credit Card Web Payment Usage at 60%	Web Credit Card Convenience Fee Revenue	Total Credit Card Receipts	Credit Card Merchant Fees
BZ	17,511	10,507	\$105,066	\$27,403,187	\$479,556
BL	6,615	3,969	\$39,690	\$4,399,876	\$76,998
HV	1,343	806	\$8,058	\$600,271	\$10,505
GF	1,379	827	\$8,274	\$471,191	\$8,246
Totals	26,848	16,109	\$161,088	\$32,874,525	\$575,304

	Total Check Transaction Count	Anticipated Web Check Usage at 60%	eCheck Convenience FeeRevenue	Total Check Receipts	Check Merchant Fees
BZ	18,420	11,052	\$110,520	\$30,003,065	\$0
BL	16,487	9,892	\$98,922	\$7,439,615	\$0
HV	6,165	3,699	\$36,990	\$1,830,012	\$0
GF	3,697	2,218	\$22,182	\$999,264	\$0
Totals	44,769	26,861	\$268,614	\$40,271,956	\$0

Cashier Costs for Entering Credit Card/Check Payments

MSU Administration and Finance Business Process Review

FY 06 (Fall '05, Spr '06, Sum '06)	Cred & Chek Corrections (based on < \$0 transactions)	BAU Avg Touch Time	BAU Annual Time	BAU Annual Cost @ \$14/hr
BZ	752	5	63	\$877
BL	355	5	30	\$414
HV	70	5	6	\$82
GF	124	5	10	\$145
Total	1301	5	108	\$1,518

Flowchart Data Collection Template

(Touch) Time to Complete (Hours)									
Resource Cost	Description	BAU Avg Minutes	New Avg Minutes	BAU Annual Time Hours	New Annual Time Hours	BAU Annual Cost	New Annual Cost	BAU Wght AVG	New Wght AVG
\$14	Receive Payment via mail, fax or phone	0.5	0.5	596.81	238.72	\$8,355.32	\$3,342.13		
\$14	Determine/Get Student ID	0.5	0.5	596.81	238.72	\$8,355.32	\$3,342.13		
\$14	Swipe/Enter Credit Card Number	0.5	0.5	596.81	238.72	\$8,355.32	\$3,342.13		
\$14	Get Credit Card Authorization	0.5	0.5	596.81	238.72	\$8,355.32	\$3,342.13		
\$14	Determine Banner Form	0.5	0.5	596.81	238.72	\$8,355.32	\$3,342.13		
\$14	Enter into Banner	0.5	0.5	596.81	238.72	\$8,355.32	\$3,342.13		
\$14	Print and Distribute Receipt	0.5	0.5	596.81	238.72	\$8,355.32	\$3,342.13		
	Total	3.5	3.5	4,177.66	1,671.06	\$58,487.22	\$23,394.89	14.00	14.00
	Total Credit Card and Check Transactions per year. New Avg at 40% of BAU	71,617.00	28,646.80	4,177.66					

Error Correction Cost

2. Non-financial and Non-quantified results

By implementing Web Payment, we will be meeting the increased demand for electronic payment processing, thus increasing student/parent and other customer satisfaction.

D. Conclusions and Recommendations

Implementing Web Payment will realize the following benefits:

- Improvement in efficiency and effectiveness of business processes
- Reduction in errors and an increase in data integrity as a result of the automated processes
- Improved compliance with Federal Trade Commission Regulations regarding safeguarding cardholder information
- Reduction in the waiting time during peak demand times

- Provide another tool for debt management
- Reduce risk of non-compliance in current instances of web-payment functionality

The Accounts Receivable Team is confident that the benefits of implementing Web Payment will improve efficiencies of operations and more importantly provide a service to our customers which meets their demands.

E. Appendixes and References

- Appendix I: Detailed Cost Based Analysis report showing the Net Cash flow for the next five years. The CBA has individual worksheets showing the overall cashier costs, error correction, Nelnet software costs, ITC costs, and the credit card and check transaction totals that are used in the calculations in the Setup and Scenario 1 and Scenario 2 worksheets.
- Appendix II: Screenshots illustrating the Nelnet QuikPAY site for MSU.