

**VIKING CARD MASTER PLAN**  
**RECOMMENDATIONS REPORT**

June 2010

## **MASTER PLANNING COMMITTEE MEMBERS**

**William Beasley** - Faculty Senate

**Jim Drnek** - Student Life

**Patti Hupcey** - Viking Card Office

**Bruce Jeppesen** - Schwartz Library

**Bonnie Kalnasy** - Budget Office

**Kathleen Mooney** - Campus Support Services (Chair)

**Ken Murphy** - Access Control and Security

**Mimi Porter** - IS&T – Network Enterprises

**Bill Shepard** - IS&T – Business Applications

### **Master Planning Committee timeline (January and February, 2010)**

- **Committee Session 1:** Introductions and overview of the Viking Card program
- **Committee Session 2:** Review of comparable campus ID card services and details on technological, regulatory and service environments that impact the Viking Card Program
- **Committee Session 3:** Discussion of mission statement and examination of the parts of the ecosystem.
- **Committee Session 4:** Review and commentary of draft Recommendation Report.

## EXECUTIVE SUMMARY

In December, 2009, at the direction of Jack Boyle, Vice President for Business Affairs and Finance, the University convened a Committee to perform a comprehensive review of the CSU one card (Viking Card) program. The goal of the Committee was to review and evaluate the existing Viking Card program to and to forward recommendations for program enhancements, potential cost savings and service improvements to the Vice President. The Committee, represented by Faculty and Staff constituent groups, analyzed the program in fine detail and from a “big picture” perspective and provided input for this report. The body of the report identifies elements of the Viking Card “ecosystem” and provides detailed information on each recommendation. The ecosystem metaphor is intended to reflect the comprehensive, integrated nature of the card system that supports a variety of secure and stable services to students, faculty and staff at CSU.

### Viking Card Program Summary

The Viking Card office, located in MC 112, is a unit in the Division of Business Affairs and Finance and reports to the Department of Campus Support Services. The office is supported by two professional staff members and a cadre of student staff. The Viking Card is a campus “one-card” that is the official CSU ID, provides authentication to events and services on campus, serves as the means for access to buildings and offices and processes thousands of transactions every day. The card management system that manages all card holder data is Blackboard Transact. It is an enterprise-wide system that manages an integrated financial and data transaction network to support comprehensive, stable and efficient processes for the University including an **on-line** account management function that allows card holders to:

- deactivate a lost or stolen card on-line (excluding door access);
- check Vikingcash account transactions and balances and;
- add Vikingcash themselves or give a guest (i.e. a parent) access to add value.

The mission of the Viking Card program is to provide innovative, reliable card services and support to students, faculty and staff which enhance the overall educational engagement and experience at Cleveland State University. The goal of the master planning recommendations is to produce action items in pursuit of this mission.

Finally, a draft of these recommendations was presented to the Student Government Association Executive Committee. They provided thoughtful and detailed commentary including:

- It makes sense for the University to adopt proximity door access including investigation of expansion to parking gates. The higher level of security and convenience support moving in this direction.
- The Vikingcash program is not well promoted. Purchases should be incentivized and the marketing should be improved. If the program becomes stronger, there is interest in a broad based off campus Viking Cash presence.
- It is important to provide a method for authentication of student status for access to student events and for the Viking Card office to better promote this capability.

## **Committee Findings and Recommendation Summary:**

### **1. Create a new design for the Viking Card to reflect that it is an official identification card.**

The Viking Card is the official University ID card and credential for CSU Community Members. Therefore, the card design should not be considered a vehicle for marketing the University, rather, it should be redesigned to reflect the needs of an official credential and the card design should remain unchanged over time unless there is a change to the standard as a credential.

### **2. Change the standard issue Viking Card technology from magnetic stripe only to a dual magnetic stripe and proximity technology.**

The standard technology on a Viking Card should, at minimum, include both magnetic stripe technology and proximity technology. The magnetic stripe will continue to be employed for purchasing and authentication transactions across campus, but for door access it is recommended to use proximity technology; which is the industry standard. The University has not adopted proximity technology as its standard card technology due to the cost per card, but with the expansion of card access to both interior and exterior doors on campus, and the challenge of find "old technology" replacement parts for mag-stripe readers the change is needed. The net cost to campus needs to be fully examined in light of the migration to a single campus door access system (Continuum). The cost of the prox card is at least \$3.15 per card vs. .34 for the magnetic stripe card, however, there will be savings to the University associated with managing a single door access technology out of the office of Access Control and Security.

### **3. Re-energize and grow the Vikingcash program.**

The cashless transaction capability with a campus ID card is standard for most campuses near Greater Cleveland as well as for most others in the University System of Ohio. All holders of a valid Viking Card have a Vikingcash account available to them. The new restrictions on credit cards should increase demand for an interest-free and transaction fee-free option for cashless transactions on campus – especially for students. Growth of the program should include: payment for parking transactions and any other campus transactions that currently require cash; discounting of Viking cash purchases; and exploring the feasibility of using Vikingcash at off-campus locations.

### **4. Increase use of Viking Card for student authentication and assessment.**

The Viking Card office and the Department of Student Life own wireless handheld card readers that can validate active student status "in the field" and gather data on who participates in student events. There should be increased efforts to deploy these wireless devices to allow only active students in student events and gather data on who attends these events.

### **5. Improve coordination of programs with CSU Dining.**

Work with CSU Dining to build a strong commuter meal plan program that runs through the Viking Card. This program should be of financial benefit to the card holder and should emphasize the new Student Center as the campus "gathering spot" at the heart of the CSU Community.

### **6. Continue to find ways that the Blackboard Transact system can enhance service to students.**

Blackboard Transact, the University's card management system provides the University with a stable, well supported product. Considering a) the quality of the Blackboard product; b) its widespread use on other University System of Ohio campuses(8 out of 14 Universities) and on area campuses (Tri-C, CWRU and BW) and; c) the resources and funding required to move to a new card management system, the Committee does not recommend changing from Blackboard at this time. Instead, the Viking Card office will continue to work to make the program as effective and efficient as possible, beginning with the implementation of the Master Plan recommendations.

# Viking Card Program Master Plan

## Comprehensive Recommendations

### VIKING CARD ECOSYSTEM ELEMENT 1 - CARD PRODUCTION

- Digital image capture and storage.
- Viking Card design, printing and encoding.

**Analysis** – The process of capturing and storing digital images and printing ID cards is central to the function of the Viking Card office. Digital images are stored to a networked server so they are available to the CSU Police for criminal investigations and to Peoplesoft for posting as part of class roster data. The camera and printing hardware is about 6 years old and a replacement plan should be considered.

**Committee Commentary – Digital Images:** Digital images are now part of the class roster that is available to Faculty members. If an individual does not have a Viking Card (which is common in the case of eLearning and other off campus students), the digital image is not created and not available to the Faculty member. The Viking Card office should explore a way to accept digital images electronically so every student image is captured for the class rosters.

**Recommendation:** Establish a requirement that all students need a digital image on file with the University. Begin exploration of off-campus student images being captured by student submittal of digital images electronically.

**Committee Commentary – Viking Card Design:** Currently, the Viking Card is seen by the University as a place to display current University marks and as a piece of marketing collateral for the campus. University Marketing redesigned the Viking Card in 2008 to incorporate its look with the rest of University branding initiatives. In the early stages of campus one-card development (early 1990s), there was a lot of attention focused on card design as a means to market the University and as a revenue generator from the sale of space on the cards. Nationally, campuses have recognized that there is little opportunity to generate revenue from merely incorporating a company logo into the card design and the CSU experience has mirrored the national trend.

**Recommendation :** Redesign the Viking Card so that it represents its status as the official CSU credential, including exploring the addition of a hologram on the card to prevent the production of fake Viking Cards. The University needs to consider the card as a University credential that has strong, stable graphics for easy visual validation of a CSU Community member by CSU Public Safety members and avoid using it as marketing collateral.

## VIKING CARD ECOSYSTEM ELEMENT 2 - DOOR ACCESS/CARD TECHNOLOGY

**ANALYSIS:** The University currently has several types of electronic door access systems on campus. Three systems use the Viking Card:

**1) Blackboard Door Access.** Blackboard uses the magnetic stripe on the back of a standard Viking Card to open interior doors in the Rec Center and Physical Education (PE) building. Blackboard door access was installed during construction of the Recreation Center. The decision to use Blackboard door access for the buildings was based on the product's capacity to read the magnetic stripe on standard issue Viking Cards. The Recreation Center opened offering automatic membership to all full time students and it was the goal of the University to allow Rec Center access to all full-time students without re-carding. The PE building was included in the installation of the Blackboard product so Athletics could add and subtract students' access to locker rooms electronically, again, without re-carding. The current cost per standard issue Viking Card is \$.34, but magnetic stripe technology is not as stable or secure as proximity technology for door access. The annual software and hardware licensing and support fee for Blackboard in FY2009 was \$14,000.

**2) Keyscan.** This system is deployed on many exterior and interior doors on campus and uses proximity technology which is not on a "standard issue" Viking Card. This product was deployed without campus wide analysis or consensus and has become the de facto access control system for CSU. There is no annual licensing fee for Keyscan.

**3) Continuum.** This system was selected by the University in 2008 to be the standard for door access technology. The plan is for Continuum to phase out Keyscan for prox access campus-wide. It is being deployed in all new buildings and can read either magnetic stripe data as long as the data is encoded in a specific, limited way that is not the current Viking Card standard. The standard for Continuum door access is proximity technology. The use of mag stripe technology on Continuum readers has posed several challenges and setbacks in the efforts to encode a standard Viking Card. Currently, cards are not being encoded to work in a Continuum mag stripe reader. The steps needed for the Continuum technology to read the magnetic stripe card data and also curb interference to other data on the card will not be simple. Cards will need to have additional encoding, requiring additional handling of the Viking Card for current card holders and either reprogramming of the Viking Card printers to encode new cards or purchasing new printers. There is no yearly licensing fee for Continuum.

**COMMITTEE COMMENTARY:** With building security being a top priority for the University, we should make a change to what constitutes a "standard issue" Viking Card. This is an opportunity to adopt proximity technology – the current standard for door access - and look at the potential emerging technology of contactless smart cards. Proximity technology has more flexibility to be used in several applications without reprogramming such as dual authentication for network sign-on. The University should make a commitment to a true one-card that has the same look, the same technology and the same potential functionality regardless of card holder status.

Despite the fact that the standard issue card was never defined as including proximity technology, due to the decentralized and uncontrolled installation of the Keyscan system for door access, thousands of proximity cards have been issued to faculty, staff and students over the past 5 years. Every Resident

needs a prox card as does every new Law student, every employee hired to work in AC, PH, etc. The additional expense to the University for proximity cards has been absorbed by departments across the University.

The University has resisted moving to proximity as standard card technology due to the cost per standard issue Viking Card. A mag stripe only card costs .34 while a proximity card will cost between \$3.15 and \$4.00 per card. However, the benefits and efficiencies of door access by proximity card should take precedence.

**RECOMMENDATION**

Establish that the standard Viking Card is a “dual-technology” card that has a mag-stripe (for commerce and student status authentication) and proximity for door access; eliminate swipe access for doors.

Furthermore, in order to enhance the security of the Viking Card, it is recommended that the University enroll in the **HID Corporate 1000** program which will create a proprietary, secure format for the CSU Viking Card and additionally guarantees no card number duplication.

A full year one analysis of the net cost to the University for Year 1 of proximity cards as standard follows.

Current cost per year for mag cards	Cost of HID Corp 1000 per card	Savings from elimination of Blackboard door access hardware and software	Cost per year based on	Additional net cost to CSU in Year 1 to change to proximity cards as standard
.34 x11,000 = <b>\$3740</b>	3.65 (est.) x 9,000 = <b>\$32,850</b>	(\$15,053)	4-color printed front and back Prox volume assumes 2000 fewer replacement cards to be printed	<b>\$14,057</b>

## **VIKING CARD ECO-SYSTEM ELEMENT 3 - VIKING CASH ACCOUNTS**

**ANALYSIS:** Vikingcash, the official debit function of the Viking Card, is a declining balance fund that works much like a bank debit card. Viking Card holders can add Vikingcash value to their accounts on line, at value transfer machines, at the University Cashier or by payroll deduction (Faculty and Staff only). Vikingcash value stays in the cardholder account until the individual is separated from the University and there is no interest on the balance or transaction fee for use. Of the 13 Universities in the University System of Ohio and 4 area campuses, all but 2 campuses support a campus cash account that runs through the campus ID card (see Exhibit B). Since these accounts are interest free and do not charge a transaction fee, they are a very good alternative to credit cards for students. Parents are able to add Vikingcash to a student's Viking Card through a secure, on-line transaction as well as monitor the student's spending (if the student allows parental access to the Vikingcash account).

Vikingcash can currently be used for: Dining purchases, at select vending locations, purchases at the CSU Bookstore, at the Rec Center pro shop, for laundry in Viking Hall and Fenn Tower and at the Schwartz Library for copies, printing and paying fines. In the past, there was a pilot program for using Vikingcash off campus to several area merchants, but due to the low participation (76 individual users) and increasing costs to the University, the program was ended.

Accepting Vikingcash is one strategy to remove cash from University departmental offices and also provides accurate and detailed audit documentation for transactions. The Vikingcash balance is additional cash on hand for the University and the higher the balance, the more interest is generated to the University. Finally, Vikingcash transactions in lieu of credit cards save the University the credit card transaction fee expense.

**COMMITTEE COMMENTARY:** If Cleveland State University wants to have a debit program through the Viking Card, it should become part of the fabric of the CSU culture and be accepted for everything including parking, Health Services, payments at Treasury Services and even at off-campus locations. With a growing residential population that is already in the habit of using the Viking Card for meal plan transactions and access, a well supported, integrated Vikingcash program is a good fit.

The Committee members provide the following updates on specific locations that currently accept Vikingcash:

**Campus –wide review (Mooney):** Card Holders who do not use Viking Cash often state that they use their credit card instead. In fact, 39% of retail dining transactions are charged to credit cards. With the changes in the credit card market due to the Credit Card Act of 2009 that prohibits card issuers from offering credit to consumers under age 21 without first verifying their ability to repay the debt or obtaining the signature of a parent or other adult, Vikingcash may be the preferred alternative for families in the future. Viking Cash is interest free, has no transaction fees and allows for tax-free purchases of food and beverages. The demand for Viking Cash for dining purchases has significant growth potential.

**Michael Schwartz Library (Jeppesen):** The Library plans to phase out its pay for print program and adopt the standard for "free" printing that is used for printing in campus computer labs. There are a few copier and microfiche card readers still deployed at the library as well as the value transfer station.

There is not a lot of demand for cashless transactions but if the University provides support for wider usage of Viking Cash the Library will participate.

**Dining and Laundry (Mooney)**- Vikingcash is currently accepted at all CSU Dining locations and at select vending machines across campus. Vikingcash transactions are markedly faster at Dining registers than credit card or cash transactions. Dining locations may be the hardest hit by the changes in credit availability to students since in FY2010, approximately 40 percent of retail transactions are with credit cards. Finally, vending machines with Viking Card readers that accept Vikingcash provide the University with complete sales data at each machine – not just Vikingcash sales. The University has no access to sales data for vending machines without card readers except what is provided by the vending company.

Vikingcash can be used to pay for laundry in Viking Hall and Fenn Tower. Euclid Commons will have Laundry included in the room rate. Residence Life plans to keep the Vikingcash system in the laundry room at Viking Hall for as long as there are residents who need it. The department is reviewing the program for Fenn Tower and there are no current plans to remove Vikingcash readers from the laundry room in Fenn.

**Parking (Shepard/Mooney)** – South Garage has technology that potentially could accept Vikingcash as payment. The University is currently working with a consultant and IS&T to determine how best to implement Vikingcash acceptance at both the South Garage and the Prospect Garage which is slated to open in August, 2010. Adding Vikingcash as a payment option in other locations will be more challenging. Many of the booths are not networked or may be too far from a wireless node to use a handheld reader. With one of the goals of Parking being to eliminate cash from the booths, taking Vikingcash is a desirable alternative. Finally, acceptance of Vikingcash in the Parking Services office to pay for a parking permit or fines will help promote the use of Vikingcash and offer an alternative to payment by credit card.

**Student Life (Drnek)** – If the card reader at the front desk in Student Life could do both authentication and transactions for *The City is our Campus* ticket program, Student Life would be glad to accept Vikingcash for ticket sales.

**RECOMMENDATIONS:** Vikingcash acceptance should be built into the commerce policies for the University wherever cash and credit cards are currently accepted. Suggested ways to support this effort are:

- Have Vikingcash use become a standard alternative on campus to accepting cash.
- Further explore the use of handheld Viking Card readers for parking payments in attended lots and increase the profile of how Vikingcash can be accepted in departments.
- University marketing should assist in the promotion and marketing of the Vikingcash program as an option when “paying for college” is being discussed. The benefits of Vikingcash for families of traditional-aged, incoming students should be communicated in University marketing material.
- Explore different options to expand Vikingcash acceptance off-campus.
- Link Vikingcash marketing to the marketing for living on campus.

## **VIKING CARD ECO-SYSTEM ELEMENT 4 - AUTHENTICATION AND ASSESSMENT**

**ANALYSIS:** The Viking Card, as the official CSU ID, must be the credential that validates student status for Authentication. Currently, the University has 4 handheld wireless Viking Card readers that can check active student status (active or inactive) and gather data on student participation for assessment purposes. The readers are underutilized, and there have been chronic problems with connecting to the CSU wireless network.

Further deployment of card readers to Athletics to swipe the card for tickets to Athletic events would be an enhancement to the current method of just a visual check. It would both check student status and track student attendance at events. Card readers could also be installed in classrooms to validate student attendance if the University decides to track attendance in classrooms.

**COMMITTEE COMMENTARY:** It is a goal of the University to gather better data for student participation in events. The current system has the capacity to do that. Further training is needed to fully utilize the products.

Also, the Viking Card is the means to authenticate in the Kronos time clocks for employees. In calendar year 2009, 604,639 "punches" were recorded in Kronos with a Viking Card swipe.

Finally, the Library authenticates patron status for checking out material with a Viking Card swipe. In FY2009, approximately 200,000 items were checked out of the Schwartz and Law Libraries using the Viking Card.

**RECOMMENDATION:** The University owns a number of card readers, both wireless and wired, to facilitate authentication of student and/or employee status and capture data related to participation in campus events. The Viking Card office Manager should spearhead better utilization of these readers, including working with IS&T to make the wireless readers more stable on the network.

## **VIKING CARD MANAGEMENT SYSTEM – BLACKBOARD TRANSACTION SYSTEM**

**ANALYSIS:** In 1998, the University launched a campus "one card" called the Viking Card. For the first three years of Viking Card operations, the core technology was smart chip technology with a magnetic stripe on the card for meal plan administration. When the company that supported the chip technology failed in 2001, the University migrated to Blackboard Transaction System using magnetic stripe technology for the Viking Card management. Over the decade, the system has expanded with many new functions, new reports and new costs to operate the system. This year, Blackboard released a significant upgrade to its card management software. The current quote for the upgrade to the University is approximately \$120,000 and is designed to achieve PCI compliance for the on-line Vikingcash account management system, and to add user demanded functionalities to the system.

The yearly support costs for Blackboard Transact in FY2010 totaled \$ 18,428 for hardware and \$ 68, 489 for software license fees. The core transaction system software expense is \$32,235 – in line with other enterprise wide applications.

## **COMMITTEE COMMENTARY:**

There is no product that would be an alternative to Blackboard that would significantly change the landscape enough to warrant a complete re-install. The University does not have a list of problems with the product that would be remedied by a switch to another system, and, overall, the product delivers a stable, secure transaction environment and a wide variety of services to the campus.

Blackboard customers across the country are going through the same process as this Committee in evaluating the cost/benefit of Blackboard to the campus. Princeton chose to make a change as did John Carroll University.

Another driver in this decision making might be a decision by the State of Ohio to select a single card management system (as the New York State System did). 8 of 12 State of Ohio Universities use Blackboard Transact as the card management system.

To avoid the yearly licensing fee for the Blackboard door access module, replace it with Continuum in PE and Rec Center. Conversion cost will be approximately \$23k, for new hardware and wiring and resources will need to be provided to the Access Control & Security Systems Department for their rapidly growing electronic access control territory.

**RECOMMENDATION:** Given that Blackboard Transact is the de facto ID card management system for University System of Ohio schools, and that the product performance and support is good, there does not seem to be a problem big enough to warrant a transition to a new system.

The maintenance costs are in line with other University-wide enterprise software systems. Yearly cost savings can be captured by eliminating the Door Access module from the program and converting the Recreation Center and PE Building to the Continuum system.

## **CONCLUSION:**

The Master Planning process for the Viking Card office brought together disparate voices from the CSU Community that helped direct the development of the final recommendations. As the current program reaches the 10-year point, it is a valuable process to engage in. The thoughtful analysis and discussion by the Planning Committee helped develop a feasible action plan to improve the Viking Card program into its second decade at Cleveland State University.

EXHIBIT A

FY 2009 Usage Data

Viking Cards issued	Meal Plan usage	Viking Cash	Authentication
11,613 total	907 Meal Plan patrons	\$136,988 deposits	Campus Activities 604
8,513 standard	220,718 meals swiped	17,000 transactions (deposits and purchases)	Rec Center membership access - 134,610
1,703 prox	\$219,646 Dining Dollars spent	<u>PURCHASES</u> \$75,955 retail dining \$58,842 vending \$30,350 Bookstore \$11,167 Laundry	Library services - 197,695 items checked out U-Pass sticker - 6000 student users
1,397 replacement		\$2431 Library (print/copy) \$650 RC pro shop	PE door access – 26,628 Prox door access estimate 2 million (includes Fenn Tower and Viking Hall)
			Kronos timeclock punches 604,639

EXHIBIT B

University of Ohio system and area campus card management information

<b>STATE OF OHIO UNIVERSITIES</b>	<b>Campus cash</b>	<b>Value transfer machines</b>	<b>On line accounting</b>	<b>Off campus merchants</b>	<b>Card management /transaction gateway provider(s)</b>	<b>Reporting line</b>
Bowling Green State University	Yes	Yes	Yes - via portal	Yes	Blackboard	Auxiliary Services
Cleveland State University	Yes	Yes	Yes	No	Blackboard	Campus Support Svcs
Kent State University	Yes	Yes	Yes	Yes	Legacy/JSA	Student Life
Miami University of Ohio	Yes	Yes	Yes - via portal	Yes	Blackboard/Uptown Bucks LLC	Auxiliary Services
Ohio State University	Yes	Yes	Yes	Yes	Blackboard/JSA	Student Life
Ohio University	Yes	No	Yes	No	Blackboard	Information Tech/Housing
Shawnee State University	No				n/a	Registrar
University of Akron	Yes	Yes	Yes	Yes	Blackboard/JSA	Auxiliary Services
University of Cincinnati	Yes	Yes	Yes	Yes	Blackboard	Registrar
University of Toledo	Yes	Yes	Yes	Yes	Blackboard	Auxiliary Services
Wright State University	Yes	Yes	Yes	Yes	Blackboard/Legacy	Bursar
Youngstown State University	No	No	No	No	n/a	Registrar
<b>AREA CAMPUSES</b>						
Baldwin Wallace	Yes	No	Yes – via University portal	No	Blackboard	Food Service
CWRU	Yes	Yes	Yes	Yes	Blackboard	Access Services
John Carroll University	Yes	No	Yes	Yes	Heartland	Bursar
Tri-C	Yes	Yes	Yes	No	Blackboard	Business Office