

Exploring the utilization of identification technologies on college and university, K-12 and corporate campuses

Locking down the Social Security number

Card programs implement
new numbering schemes
to reduce identity theft

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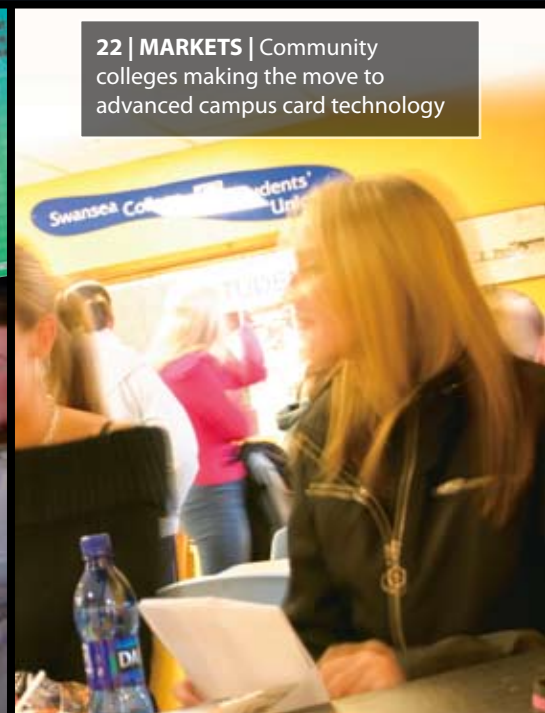
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SSNs, Brett Favre, and a group high-five

Chris Corum

Executive Editor, AVISIAN Publications

Five years ago, an article in CR80News profiled a number of campuses that were making the move to eliminate the Social Security Number (SSN) from their ID cards. The article closed with the following paragraphs:

"It is definitely time to open discussion on your campus about the future of the SSN as an identifier. It impacts many areas, not just the card program. (The) public display of an SSN, in whole or in part, such as for the purpose of grade posting is strictly prohibited. The printing of the number on ID cards has already been outlawed in certain states and others are coming soon. It is only a matter of time before federal legislation considers more hard-lined restrictions.

Be proactive. Begin developing a plan for how you will migrate if, or more likely when, the time arises. Talk to your card system and other impacted vendors and ask them for their experience in migration from SSN to another unique ID. It is not an easy process but it will not take care of itself. And if legislators at both the state and federal levels continue to see the rising problem of identity theft, every campus will be forced to act whether they have planned for it or are blindsided."

Campus card administrators deserve a group high-five. Based on the survey conducted for this issue, it seems that campuses, by and large, have successfully eliminated the troublesome nine-digits from the card.

But as you will read in the article *Are campuses gambling with student privacy*, there is still much more to be done.

By the time you read this, summer will be ending and the freshmen will be arriving on campus. Beloit College's annual College Mindset List always provides a great perspective on the incoming class and this year's work was no exception. Your freshman class is the first class born in the decade of the 90s.

For these students, Sammy Davis Jr., Jim Henson and Freddy Krueger have always been dead. Brett Favre has always been the quarterback for the Green Bay Packers; and Martha Stewart has always been telling people how to make their holiday tables festive.

Allow me to make a card technology version of this Mindset List ... For these students, campus card programs have always had banking partnerships; there have always been smart cards available; there have always been user-friendly Windows operating systems (actually version 3.0) driving campus card systems.

Good luck with your incoming students and keep up the good work you do to help keep them housed, fed and safe.

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University of Central Florida to end off campus program



While more colleges are enabling their student ID cards to be used off campus, the University of Central Florida in Orlando is canceling its program beginning next May. The reason: students have enough options on campus that an off-campus program isn't needed, says a university spokesperson.

As expected, many of the 27 vendors, including restaurants and bookstores, aren't happy with the school's decision. "You're taking the choices students using smart cards have now and cutting them in half," said one of them.

Investment firm buys minority share in Higher One; OneDisburse product continues rapid growth

Lightyear Capital, a private equity investment firm has agreed "to make a significant investment" in financial services provider Higher One. Lightyear would not divulge the dollar amount of the investments.

According to Lightyear, its investment in Higher One is part of a leveraged recapitalization in which the company will repurchase Higher One shares from existing investors. Lightyear will thus become Higher One's largest shareholder "with a significant minority stake," the company announced.

In other news from HigherOne, fifteen additional colleges and universities have signed agreements (during the summer) to use the OneDisburse Refund Management system from Higher One, a financial services company serving higher education. That brings to 185 the number of campuses in 37 states that are now using the Higher One platform to speed disbursement of refunds to their students. That's also a 20% growth rate in 2008 alone.

Three more schools partner with Off-Campus Advantage



Off-Campus Advantage, a subsidiary of The CBORD Group, and a provider of off-campus payment services for universities and colleges, has signed up three more schools. The new clients are Jackson State University, Jackson, Miss.; the University of North Alabama, Florence, Ala.; and St. Lawrence University, Canton, NY.

Hand scans added to Tennessee university ID system



Middle Tennessee State University, Murfreesboro, Tenn., has added hand scanning to complement its new ID numbering system, at least for entrance into the school's recreation facility.

The school has already assigned an eight-digit identification number for the campus "BlueID" card as part of a new campus-wide software system. But in addition, students and staff members are placing their right hands on to a hand geometry scanner that turns the shape of their hands into 9-character templates to access the school's newly renovated recreation center, where some members have been caught passing their ID cards to nonmembers to swipe through card readers for access.

While the hand scanners will only be used in the rec center this year, the system could be used for 24-hour computer labs and other areas of the campus, according to a university spokesperson.

MTSU issued new ID cards to all students, faculty and staff this summer to weed out decades-old cards that still have Social Security

numbers printed on the front. Although the school removed Social Security numbers from ID cards a decade ago, many tenured faculty members still carry around old ID cards that use the numbers.

University donates ID scanners to fight underage drinking



The University of Wisconsin-Madison has used donated funds to buy handheld scanners that have been given to seven liquor stores and one grocery

store to make it easier for their employees to spot fake IDs.

Usually, bars or clubs buy the devices or universities use them in their on-campus pubs, but it's rare for a school to go that extra step by donating scanners to area businesses, said Charles Cagliostro, president of TokenWorks Inc., the Delaware-based company that sold the scanners to the university.

The recipients of the scanners have agreed to use the gadgets to swipe customers' IDs to instantly determine the students' ages or whether the IDs might be fake. The money for the scanners is from the UW Police Department and the chancellor's office.

Release 3.0 of Blackboard Transaction System announced

Blackboard Inc., a provider of educational enterprise technology, has launched Release 3.0 of its Blackboard Transaction System that includes a new interface and integration with the company's video surveillance system.

"Release 3.0 of the Blackboard Transaction System represents a major landmark for our customers," said David Marr, Blackboard Commerce president & chief operating officer. "Release 3.0 will enable our customers to trans-

ID SHORTS

form the way they interact with and serve their constituents, by combining the best software functionality and hardware compatibility of previous Blackboard Transaction System releases, along with mission-critical reliability and improved ease of use."

CardSmith launches new campus ID card program for UNF

An upgraded ID and verification process and "Ozzie Bucks," a pre-paid flexible spending account, are among the new services being rolled out to students, faculty and staff at the University of North Florida in Jacksonville.

Known as the Osprey 1card and developed in conjunction with campus card solutions provider CardSmith, it is designed to bring enhanced services and security to UNF's 16,000 students, their parents, faculty and staff.

Colorado State's campus card adds Visa debit functionality via instant issuance

Colorado State University students and faculty can now receive an instantly-issued campus ID and Visa debit card rolled into one, thanks to a partnership between Dynamic Card Solutions, a developer of instant issuance solutions for banks, credit unions and retailers, First Na-

tional Bank and Runge & Co., a consulting firm specializing in card issuance systems.



Dynamic Card Solutions' CardWizard software application will be used to provide the university's new RamCard Plus card. It can be issued from the campus card office in a matter of minutes. When CSU students or faculty and staff apply for their new campus IDs, they can choose a traditional RamCard student ID without the check card option or the new RamCard Plus with the Visa check card capability.



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- Tammy Kidder, University of Central Florida

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Are campus ID programs **GAMBLING** with student privacy?

Most have eliminated the Social Security number from the card, but what about the myriad of campus systems?



Andy Williams
Contributing Editor, AVISIAN Publications

The ubiquitous nine-digit Social Security number is rapidly disappearing from the ID scene as colleges, governments and businesses attempt to stem a glaring ID theft risk. Colleges and universities long used the number to identify students and staff. Today, however, state legislation, student demands for greater security, and proactive campus administrators are changing all that.

The days when you could approach a bulletin board to see class grades listed by SSN are mostly gone. So too are days when student ID cards had the SSN plastered on the front in bold black print.

It was only few years ago, when the biggest issue with the SSN was that freshman had to memorize it. But today the epidemic of identity theft has raised the bar on SSN concerns.

Breaches have plagued higher education ...

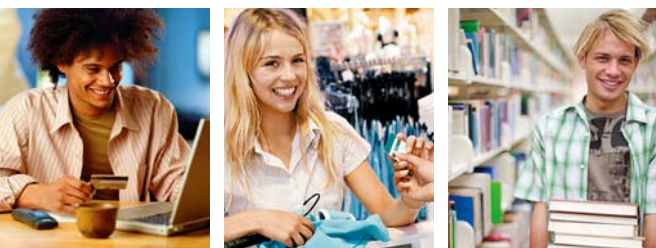
According to the Privacy Rights Clearinghouse, which lists a chart of all data breaches since 2005, about 230 cases have been reported at colleges and universities. Some of the same schools appear on this list multiple times. Last year set the record, with 72 breaches at four-year schools. So far this year, through Aug. 7, there have been 49 reported cases at universities.

But it's not all about breaches. For example, in January of this year, a computer hard drive containing the names and Social Security numbers of current and former employees at New Mexico State University, Las Cruces, went missing.

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Sometimes, it's inadvertent mistakes by the university. At the University of Iowa, its engineering department exposed some of its former students' information, including Social Security numbers, when it posted the data on the Web for several months.

Finally, there's the stolen laptop issue and it illustrates the fact that even though socials no longer appear on student IDs, they're still in the system. For example, at Penn State University, University Park, earlier this year, a laptop containing archived information and SSNs for 677 students attending the school between 1999 and 2004 was stolen from a faculty member.

A survey of campus card numbering schemes

CR80News was curious if schools were still using the SSN as the ID card number and, if not, how they replaced it. Of the schools we interviewed, none were using Social Security numbers as student identifiers. But most only quit doing so in the past few years, even though issues with Social Security numbers have been ongoing for more than a decade.

In many cases colleges have switched because state laws forced them to seek other numbering systems. That's what many of the campuses responding to our survey mentioned as the major reason for banning SSNs on ID cards.

Purdue University in Indiana thought it was a good business practice, but that was "certainly tempered by the possibility of ID theft," says Wayne Hilt, the university's card services manager.

In fact, most of the universities responding to the survey named ID theft fears as one of the reasons that pushed them toward randomly generated ID numbers rather than Social Security numbers.

"We stopped printing the SSN on the face of the ID card in May of 2003, but we did not remove it from the magnetic stripe on the ID until May of 2006," says Hilt.

Tompkins Cortland Community College, Dryden, N.Y., wanted to be "proactive instead of reactive," says Tova Sturmer, the schools' card manager, describing the transition from SSNs to a random generated numbering system.

The school, like many of the colleges that responded to the survey, still has the SSNs floating around in their databases. "But it is not used for anything on our campus except where it needs to be, such as financial aid," says Sturmer.

Purdue uses a "10 digit University ID number generated by our IT department," says Hilt. "The largest problem is making sure that you do not assign two numbers to the same individual. If that happens, we do have a process to consolidate the information onto one number."

University of Vermont in Burlington replaced the SSN with a random number scheme last summer due to Vermont legislation, says Mark McKenna, program



Interesting facts about SSNs

Since the Social Security Act became law in 1936, more than 442 million numbers have been issued. About 5.5 million numbers are assigned annually and, according to the Social Security Administration, there are still plenty of numbers to go around, at least several generations worth.

The lowest card number issued – 001-01-0001 – was in New Hampshire in 1936. The first person to draw benefits was a Cleveland, Ohio man who retired a year after the act became law. His one-time lump-sum payment? 17 cents.

The federal government still requires employers to keep track of such numbers and they're also required in many cases to track student financial aid.

Oddly, Medicare cards issued by the federal government still have the numbers listed, according to a recent investigation by *Consumer Reports*. That same study found that one in five ID theft cases arose out of missteps taken by a local, state or federal government agency.

director, CATcard service center. "The only SSNs still in the system are for people who have not received their employee number from human resources. We have written an interface that replaces the SSN with the employee number when one is created in HR."

Central Michigan University, Mount Pleasant, which dropped SSNs two years ago, has gone to a 10-digit number "generated by our student information system when a student applies," says Anthony Smucler, campus ID office coordinator. While ID theft fears was one of the reasons for the change, the university also wanted "to consolidate several home grown systems into one large student information system and it made sense to drop the socials," he adds.

The University of Southern California in Los Angeles also has its 10-digit student identification number generated randomly, says Brenda DeLong, USCard services director. "Occasionally an individual will end up with two records, that is two unique numbers ... one number survives, the other is assigned but permanently merged with the surviving number," she adds. In addition, there "has been a concentrated effort" to eliminate socials both as individual identifiers and in the school's databases.

For the University of North Carolina at Chapel Hill, it's a PID number that identifies its students. It stands for Person ID and was introduced a decade ago, says Jim Clinton, UNC's director of operations. "Our PID is a nine-digit number that begins with the number 7" to distinguish it from a Social Security number, he adds.

At the University of New Mexico, Albuquerque, "students are assigned a system-generated, 9-digit unique identifier, their UNM ID number," says ID card services manager Carolyn Hartley. They use the Banner Student Information System, she adds, noting that the system only issues the number after a search to make sure it's not a duplicate.

But no system can completely eliminate human error as noted by another Banner user, Angelo State University, San Angelo, Texas. "We sometimes end up with duplicates if the person entering information into Banner is not careful or if we type in the wrong number and pull up the wrong record," says Audrey Wilson, director of the school's card program.

ISO numbering continues to be a popular alternative for campus cards

One of the more popular numbering systems appears to be those that are ISO-compliant. ISO stands for International Organization for Standardization. It is, as card provider CardSmith's Taran Lent explains it, "the only global standard for card numbers and encoding on the planet."

To be able to use the 16-digit ISO numbering system, one has to go through an application process to "become an issuer of an ISO number," says Lent. Universities are then assigned a code range and "you can then issue numbers within that range. Those numbers belong to you and they're guaranteed to be unique," adds Lent.

Hundreds of campus card programs across the country have migrated to ISO numbering.

One school in the survey, Babson College, Wellesley, Mass., has never used a Social Security number to identify students. The number has always been ISO-based and is issued by the school's IT department, says Babson's card manager Steve Heaslip.

Protecting the identities of former students and staff

While universities may think thieves can't obtain students Social Security numbers if they're no longer used as student identifiers, what may not be considered are students who have graduated. There have been instances of lost laptops that contained the SSNs of students in old databases.

The University of New Mexico preempted that possibility by going back 25 years in its databases and assigning Banner ID numbers to other students in the system, "just like current and future students," says Hartley.

Beyond the ID card, SSNs hide in every corner of the campus

But the Social Security number, because its ubiquitous nature even before it became an ID thief's favorite tool, is everywhere. It's like a tumor. You get rid of it in one area only to find it present in another.

Just because the SSN is no longer present on a student ID card or in the mag stripe, the number is likely present in dozens of other databases housed on campus servers, department-specific applications and even professor's laptops.

Also, schools still must use Social Security numbers for federal financial aid registration, meaning the information is still possibly susceptible.

While universities may think thieves can't obtain students Social Security numbers if they're no longer used as student identifiers, what may not be considered are students who have graduated.



The anatomy of a social security number

The nine-digit number has been used since 1936 to track a person's wages for the purpose of accruing benefits within the Social Security Administration. The number has three sections:

Area numbers

The first three digits of the SSN are called the area numbers. This is because they originally corresponded to the state that a person lived in at the time they were issued their SSN.

Beginning in 1972, the area numbers began being assigned based upon the zip code in the mailing address to which the individual requested his or her card to be sent. Thus, it is possible for someone to reside in one state

but ask that the card be returned to another state, thus rendering the area number less than "area specific."

Group numbers

Digits four and five in the SSN are referred to as group numbers. They are used to identify the block of numbers currently being issued. As an example, the SSNs 123-01-0001 through 123-01-9999 would all be issued before moving on to the next group number.

Serial numbers

Digits six through nine are known as serial numbers. They are issued consecutively from 0001 to 9999.

What can be learned about a person simply by dissecting their social security number? Not much. Only the state in which they lived when they applied for the number for those issued prior to 1972 and the state noted in the return address for those applied for after 1972.

If you were so inclined, however, by memorizing the following table you would likely correctly "guess" the majority of people's birth states knowing only the first three digits of their SSN.

It wouldn't get you much but it might win you some free beers in a "stupid bar tricks" competition.

SSN area numbers assigned by states

001-003	New Hampshire	362-386	Michigan	650-653	Colorado
004-007	Maine	387-399	Wisconsin	525-585	New Mexico
008-009	Vermont	400-407	Kentucky	648-649	New Mexico
010-034	Massachusetts	408-415	Tennessee	526-527	Arizona
035-039	Rhode Island	756-763	Tennessee	600-601	Arizona
040-049	Connecticut	416-424	Alabama	764-765	Arizona
050-134	New York	425-428	Mississippi	528-529	Utah
135-158	New Jersey	587-588	Mississippi	646-647	Utah
159-211	Pennsylvania	752-755	Mississippi	530	Nevada
212-220	Maryland	429-432	Arkansas	680	Nevada
221-222	Delaware	676-679	Arkansas	531-539	Washington
223-231	Virginia	433-439	Louisiana	540-544	Oregon
691-699	Virginia	659-665	Louisiana	545-573	California
232-236	West Virginia	440-448	Oklahoma	602-626	California
232	North Carolina	449-467	Texas	574	Alaska
237-246	North Carolina	627-645	Texas	575-576	Hawaii
681-690	North Carolina	468-477	Minnesota	750-751	Hawaii
247-251	South Carolina	478-485	Iowa	577-579	DC
654-658	South Carolina	486-500	Missouri	580	Virgin Islands
252-260	Georgia	501-502	North Dakota	580-584	Puerto Rico
667-675	Georgia	503-504	South Dakota	596-599	Puerto Rico
261-267	Florida	505-508	Nebraska	586	Guam
589-595	Florida	509-515	Kansas	586	American Samoa
766-772	Florida	516-517	Montana	586	Philippine Islands
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Hotel locks on steroids?

Previously offline access systems move closer to online via virtual networks and WiFi

Chris Corum

Executive Editor, AVISIAN Publications

Controlling access to buildings and dorms is an essential component of campus safety, but administrators face a constant struggle to balance security and cost. Standalone electric door locks offer a compromise that can deliver solid security at an affordable cost. In recent years, advances in these un-wired solutions have improved the functionality moving them closer to their wired counterparts.

For more than a decade, campuses have deployed 'hotel-style,' card reading locks on interior dorm, lab and office doors. Electronic key codes encoded in the ID card's magnetic stripe controlled access to an approved door or grouping of doors.

In early implementations, most were standalone systems that required keyholder data to be loaded manually into a dedicated database. Over the years, providers worked to integrate the offline lock program into the broader campus security, housing and card systems.

Still, however, the un-wired attribute that made them desirable also left them vulnerable. The ability to change keys, cancel lost and stolen cards, or lock out an existing cardholder was cumbersome and often required personnel to physically visit each lock.

But all this is changing. Two different approaches are changing the way these stand-

alone lock systems are deployed, and each is advancing the power of the product.

The first approach relies on the intelligence and storage capabilities of a contact or contactless smart card to create a virtual network among the offline readers. The second approach puts these standalone locks online via wireless networking.

The card as the network

In the case of the card-enabled or card-connected networks, the ID credential itself serves as a virtual network updating the standalone locks with important information, such as in-

dividual usage history, newly cancelled card lists, and more.

Corestreet offers a card-connected solution that relies on contact smart cards and cryptographic keys to create a highly secure virtual network within an installation of standalone locks (see Card-connected access control, *re:ID Magazine*, Summer 2008).

Other companies use contactless cards

Chuck Hummitsch, regional business manager for Salto Systems, a Spanish company with U.S. headquarters in Atlanta, calls his company's locking solution a "hybrid product that gives you ease of installation but the flexibility of a hard wired system."

"Our locks are not on a network, the network is the credential you're carrying," Hummitsch emphasizes. In Salto's case, the credential is a standard contactless card, keyfob or sticker. When you go to the lock, it actually talks back to the contactless card, and the card records information about the transaction.

Instead of each door being wired to the network, so-called "hotspots" are used to refresh the card information. Hotspots look different, they're basically square readers, compared to other readers, says Hummitsch.

"When you enter your parking lot, the hot spot reader may be at the parking gate or the main entrance. When you present your card, you're authorized, plus whatever you visited yesterday will be downloaded to the network," says Hummitsch.

Not every door is a hot spot. Your office door may not be. But if you somehow bypassed the hot spot door on your way in, you may be unable to gain access to your office because the system won't recognize that you're there legitimately.

"It's up to the end user as to how many hotspots are installed," says Hummitsch. "A university will put them in places where there is consistent traffic flow."

In cases of lost or stolen cards, once reported, that person's card is locked out. Granted, a person with the lost card may be able to access a door or two, but only for a short period of time.


The University of Hawaii, Hilo, which recently installed Salto's offline door locks at its new recreation center, has 10 online hotspots. "The rest of the interior doors, probably 30 to 50 locks, are offline," says Hummitsch. "We're getting ready to do its pharmacy building which is going with another 10 hotspots and 80 interior door locks."

One of the added benefits to the Salto system is that distance does not matter. "Let's say you have a remote building, such as the University of Hawaii's astronomy building which is on top

of a mountain, put a standalone lock on the door and it can still be read," says Hummitsch.

But these card-connected systems are not without drawbacks. Most of the current offerings rely on a contact or contactless smart card to power the virtual network. If the card is not already deployed on the campus, the added cost could negate the savings of the un-wired access control system.

"You are getting the ability to carry the authorization and maybe bring back some audit



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trail, but you lack the ability to get an alarm back from the door," explains Bret Tobey, Intelligent Openings Business Development and Product Manager, Assa Abloy.

"Add a few hundred dollars and you can get the alarm back," he adds, referring to the addition of wireless communication to the standalone lock.

WiFi replaces wires for standalone locks

The second new approach relies on the proliferation of wireless networks on campus to enable management of standalone locks in near real-time.

"One of the key advancements involves taking lock systems online via wireless," says Dan Gretz, senior director of marketing at Blackboard. "Our clients appreciate the ability to deploy wireless locks much faster and maintain connectivity and control remotely."

"This is a big trend and focus with our campuses," says Taran Lent of campus card provider CardSmith. "Schools want the best security solutions available and are not as concerned with saving money in this area. Schools want proven security solutions that are also leveraging new technology."

CardSmith has partnered with Ingersoll Rand to provide locking systems to the universities serviced by the campus card provider.

"Many of our clients were choosing Ingersoll based on their own research. Ingersoll has innovated and holds patents on wireless door locks," says CardSmith's Lent. "IR uses online locks where it makes sense, offline where it makes sense."

With main exterior doors it will be a wired or wireless lock but online and actively communicating with the system. Individual doors like dorm rooms would be offline, says Lent.

Blackboard's Gretz reports, "Blackboard's offering features Blackboard Wireless Door Access by Ingersoll Rand, and we also offer integration support for Persona, Best and Onity."

Like the card-enabled locks described previously, wireless locks have some shortcomings as well. Wireless communication, and thus system operation, can be disrupted by normal or malicious causes. Power consumption for wireless operation is larger than for other standalone locks, so battery life is limited.

A comprehensive approach to security planning

"Because we have so many types of companies, we try to look at it as a mix and match to pick the best products and communication modes for the specific installation," says Assa Abloy's Tobey. The company owns numerous lock and security manufacturers including household names like Sargent and Yale.

"Customers don't pick online or offline," he states. "They mix the two and they look at how much they want to spend per opening ... weighing that against what they need to get done."

"I would never use a (wireless) radio on an exterior door," he explains stressing that these locations should be hard wired to the security system. "In the lab or lounge inside, you may want a (wireless) radio lock, then at the residence hall doors you may want to go standalone without a radio. It depends on the unique needs of the campus and even the building."

Campuses need to ask the questions:

- Do we need to get an alarm back from the door?
- Do we want to use our existing card?
- Do we need frequent communications or can we get by without it?
- Can we put up with proprietary infrastructure?

In the end it is usually a mix of products and communications that create the best solution. "We often see systems from 5, 6, or 7 companies on a single campus," says Tobey. "I don't see this going away."



Kiosks speed dorm room check in enabling self-service for electronic keys



Onity, a global provider of electronic locking solutions, has taken self serve to the next level. Returning college students don't have to go to the school's office to get their new room assignments. If they have a current student ID card, they simply stop by a kiosk and self-register.

"Check-in historically has involved a lot of time-consuming, one-on-one interaction, with almost every new and returning resident," says Anthony Zamora, head of IT support for the University of San Diego. Students checking in at the university have stood in line for up to three hours, he adds. With the Onity kiosks, wait time has been reduced by more than 50%.

Ron Kandcer, Onity's national sales manager, says the company introduced the

kiosks in 2003. "We wanted to give universities the flexibility of not having students stand in line for check in."

He says that any returning student with an ID card can go right to the kiosk screen and insert his ID card. The card is read, updated and encoded with the new information for his room.

Even if the electronic door locks have PIN pads, students can, with the kiosk, choose their own four digit PINs. We can assign a generic code at beginning of the semester but students are required to go to the kiosk and change their PIN within about two weeks," says Kandcer.

The software-based access control system uses standalone battery operated locks. "The software enables us to have real-time control over many of the doors," says Kandcer. "You can update online doors right now. If someone breaks in, a roving officer can be sent an alarm via a cell phone or PDA.

At first Onity was using its hotel room locks on campus, but they didn't work out, says Kandcer. "Colleges needed something more advanced. You have college students who come in with long-term stays or multiple students sharing one room so if one person lost his card, it wouldn't affect another."

Another feature of the system is the way it handles master keys, or those used by campus security. "You want to make sure that card is in the right hands, so you can set up a parameter that the card needs to be checked in every so often at a kiosk. If they don't validate, the card won't be valid anymore," says Kandcer. So if a master key is lost or stolen, "your period of vulnerability is limited. Most universities have that set up weekly."

Onity Kiosks also feature customization options, such as Internet access that provide users with campus and community information, university resources, weather, news, restaurants and maps.

Duluth, Ga.-based Onity, part of UTC Fire & Security, a unit of United Technologies, has its products deployed in 185 colleges worldwide.



Poland wants smart card IDs for students

The eventual goal is interoperability, but issuing the card and adding functionality is first



Andy Williams

Contributing Editor, AVISIAN Publications

In the past 18 months, two companies have issued more than one million dual-interface smart card IDs to students of 450 universities, colleges and high schools. Interoperability of the applications between the different institutions hasn't happened yet but it may be on the horizon.

The Polish government thought a smart card student ID system could enable interoperability between universities and make it easier to identify students.

"Universities dream about interoperability, but they approach it carefully," says Jacek Blahut, IT systems director responsible for development and sales of card-based systems at OPTeam, the Rzeszów, Poland company responsible for the student ID card deployment. "They make small steps, like one university makes its library available to students from other universities in the city using their student card as a library ID. It requires some decisions, setting up some procedures and integrating several library and campus card systems, but they can do it, with our help."

According to Blahut, OPTeam specializes in implementing card-based systems for financial institutions, corporations, retailers, universities and governments. Its university campus card system goes by OPTicamp. "We have been dealing with smart card technology since 1996 and we implemented the first campus card system in Poland in 1999," says Blahut.

While a smart card student ID system is not mandatory, the Polish government recommends it, says Blahut. "A paper ID is still valid and some universities issue paper student IDs instead of a smart card," he says. "The important fact is that the new card entitles its users to discounts in public transportation. That is why universities wanted one card only, for both campus purposes and a nationwide student ID recognized in public transportation."

Prior to the introduction of the smart student ID card, students had to use two documents, a paper student ID that is useable in public transit, and a smart card used only in campus card systems, he says.

OPTeam is a value-added reseller of Gemalto, which provided the cards. OPTeam then personalized the cards for the colleges and schools. Large-scale deployment started last fall.

"About 80 universities use our campus card system," says Blahut. "There are 1.9 million students in Poland and we have delivered one million student cards to universities. We are now in the process of implementing four more campus card systems, which are supposed to start at the end of September and we are negotiating with several more. And those systems already implemented will continue to evolve by adding new functions and services."

OPTeam's campus card solution provides the student card personalization. "We also set up the whole personalization system (software, hardware, procedures) in the university. Most universities built their own personalization centers. Some small universities use personalization centers of other universities," says Blahut.





He says new functions are gradually being added to the student ID cards. "Universities build functionality of their campus card systems separately, but we are now starting several projects in which certain functions available at one university will be offered to students at other universities, like libraries or bike rental systems."

While many of the cards do include electronic purses, they are not bank cards, Blahut emphasizes. That's because the cards don't match the requirement of payment organizations like Visa or MasterCard. "Some universities use student cards for building local e-purse systems, such as payment for prints and photocopies, vending machines and other items."

Some universities are incorporating digital signature applications into their student cards. "Universities usually set up their own certificate authority systems and use the digital certificate internally for logging in to workstations or integrating it with their back office systems," Blahut says.

The digital signature can also enable students to electronically sign documents, sparing them the hassle of having to go to a university office to handle paperwork. With the authentication capability, students can also gain access to specific documents on the university's computers and to the information kiosk, which provides course details.

In addition, Poland's national ID card is supposed to include a digital signature. "So the question is where to put my digital signature, on my student card or on my national ID," says Blahut. "Tests using a student card as a carrier of a common digital certificate are underway we should know the best solution in several months."

All cards supplied to the universities are hybrid, dual interface cards capable of both contact and contactless transactions, says Blahut. "The contactless part of the card is used for door access mostly, but there are projects starting now where it is also used for identification in a library and for a local e-purse," he says.

"In some cities, such as Warsaw, Krakow, Gdansk, Poznan and Lublin, public transport tickets are stored in the contactless part of the card. These electronic ticketing systems are different in all these cities so if you are studying in Warsaw and your card is working within the Warsaw electronic ticketing system, you can't use it in any other city," adds Blahut. "But all universities located in any of these cities – for example, there are about 10 universities in Lublin and dozens in Warsaw – may issue student cards, which can be used as carriers of electronic tickets in a given city."

Choosing a vendor

The universities choose Gemalto because they best product available for the job. The specs were routine, such as meeting ISO 7816 requirements, says Blahut. "Gemalto offered a sophisticated hybrid card, a Java based GemXpresso card, with cryptographic applets and an additional contactless Mifare chip, with a price which was not available from other manufacturers," he adds.

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Card Printer Solutions

Contactless getting a long look on campus

But will its use expand beyond access control and into other card applications?

Andy Williams

Contributing Editor, AVISIAN Publications

It wasn't too long ago that contactless technology was considered the Cadillac of card technologies, but decreasing prices and increasing security concerns have placed contactless squarely in the sights of many college campuses.

HID Global's Mark Doi welcomes the change. He represents the security provider as director of end user accounts for the Education Market, and in this role works with campuses across the country. "Contactless has become an essential technology for new and expanding campus card programs," says Doi.

The number of campuses using the technology is growing rapidly around the world and in the U.S. In Europe and Asia, campuses have been using contactless technology for years. Products like LEGIC, Mifare from NXP and Felica from Sony are used to control access to facilities and conduct other campus-specific transactions.

In the U.S., HID Global's iCLASS product is the dominant contactless technology on campus. According to Doi, "we have more than 100 schools using, or in the process of migrating to, iCLASS."

Differences between contactless and prox

It is important to clarify the distinction between contactless technology and proximity technology. Though this nomenclature does not hold true for all parts of the world, in the U.S. there is a very significant difference between the two.

Prox cards are an older access control technology that is limited to basic communication of a single identification number to a reader.

Contactless cards, on the other hand, are smart cards with chips that can hold multiple ID numbers, manage applications and process transactions on the card. The technology also enables complex security techniques to encrypt communications, enforce card to reader authentication and more.

When Doi references 100-plus campuses using iCLASS, he is referring to HID Global's contactless product, not its widely used proximity product. He estimates that at least 300 campuses use the company's prox cards, which are so common in North America that many simply call them "HID cards."

How are campuses using contactless?

Access, access, access ... this has been the mantra for contactless technology on U.S. campuses to date. The vast majority of institutions using the technology have installed contactless door readers and tied those readers into their security system. Cards containing both the contactless and magnetic stripe technology are issued to the population or a subset of the population.

The contactless component drives the access control transactions and the magnetic stripe is used for the non-access functions. Every cam-

pus card vendor almost certainly has client institutions that are operating in this manner, and every campus is capable of doing so.

But the question remains, when will the multi-application capability of the contactless technology take hold? When will the traditional campus card functions – meal plans, library patron ID, payment for vending and laundry environments, etc. – migrate to the contactless world? In a select few instances, this has already occurred, but the migration is gradual.

Campus card vendor offerings differ

SmartCentric rolled out its contactless products last year. The Irish company launched SmartCity 6 in 2007 in response to customers requesting the technology, says SmartCentric CEO Kieran Timmins. The product includes support for contactless payment transactions and privilege control beyond the more common physical security uses.

"Our SmartCity System is a full campus card system providing many applications on a single contactless card," adds Timmins. Five campuses in the U.S. serviced by SmartCentric are using contactless and "we are working with another two."

Heartland Payment Systems, new owners of campus card provider General Meters, offers contactless acceptance for on and off campus payments. "Our college and university clients are requesting that we enable (contactless) technology in not only new installations, but retrofit existing installs as well," says Bill Norwood, micropayments solutions architect for Heartland.

The CBORD Group, which supports HID Global's iCLASS cards in its access control offering, has seen an uptick in contactless interest even though it has "historically been greater in the international market," says Randy Eckels, senior vice president, sales and marketing. "Interest in contactless technology has steadily increased amongst our client base with new inquiries coming in frequently. A meaningful



percentage of CBORD customers have already implemented the technology.”

He says the company is “constantly gathering feedback from our clients on new technologies they would like us to offer. Many of the contactless solutions we offer currently were the result of university requests,” Eckels adds.

Swiss company LEGIC Identsystems, a provider of contactless technology to campus card suppliers and others, sees the demand for its products from colleges and universities “constantly increasing,” says Otto Eggimann, vice president sales and business development.

Blackboard VP of Marketing Jeff Staples says that a number of the company’s clients have implemented contactless for security applications and many more are considering it. “Blackboard is committed to delivering solutions to fit the needs of our clients,” he says, “and we see a bright future for contactless technologies.”

The market got a view of Blackboard’s plan via an announcement last November. As outlined in a company press release Blackboard is building support for Sony’s FeliCa contactless technology and Near Field Communications (NFC) into the overall Blackboard card and transaction system. The announcement alludes to the deployment of contactless technologies beyond access control.

Migration to contactless: Pros and cons

Contactless enables “a simple and easy-to-handle application of the technology for the user,” says LEGIC client Andreas Pircher, with Bozen University in Bolzano, Italy. “The user doesn’t even have to take the smart card out of his wallet.”

Utilizing contactless technology is “driven by the advantages of convenience as well as performance,” says Steve Noret, associate registrar at the University of California-Merced, a CBORD client. “With less direct contact to a card, there is an inherent longevity that may be enjoyed for the card itself.”

Since the Merced school is relatively new – the first research university built in the 21st century – it didn’t have a legacy campus card structure in place, which meant there were no infrastructure upgrade costs, says Noret. “We made a conscious decision to use our current

system after much research, and even visiting campuses across the U.S. to see their particular systems,” he says.

Contactless technology also provides an additional level of protection against fraudulent or counterfeit card creation. Though experts are quick to point out that no technology is completely impervious to fraud, contactless technology provides a major improvement over magnetic stripe or barcodes when it comes to counterfeit resistance.

The major drawback traditionally cited against contactless is the added cost when compared to magnetic stripe-only cards. But LEGIC’s Eggimann points out, “a new installation is, of course, a big investment, but customer’s ROI calculations prove that the investment is protected.”

Depending on the size of the implementation, universities may decide to re-card their campuses or convert a significant amount of existing equipment to new devices, says CBORD’s Eckels. “Activities of this scale require an investment of time and careful planning.”

SmartCentric’s Timmins agrees, noting that before making the contactless plunge, campuses should have the right business plan. He suggests a “phased approach which helps them from becoming overwhelmed by the tasks and enable them to support existing applications while upgrading one or two applications at a time.”

Will the mag stripe be a thing of the past?

Most agree that even when more of the campus card applications can be handled via the contactless card, there will still be a role for the magnetic stripe. Legacy systems, home grown applications, and instances where security is not crucial may continue to rely on magnetic stripe and barcode technology in perpetuity.

Merced’s Noret agrees. Even though the California school was not saddled with legacy equipment, he believes a dual technology card is perfect for most schools, as it has proven to be for his institution. “The mag stripes are used with some of the point of sale systems such as cash registers and the laboratory printers, laundry and library copiers. The contactless is used for access, library checkout system, and gym membership,” says Noret.



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Community colleges making the move to advanced campus card technology

Expanded service delivery to students creates need for cards in this untapped market

Andy Williams

Contributing Editor, AVISIAN Publications

Nearly half of the nation's undergraduates haven't had the same level of access to a campus card. That's an untapped and underserved market that includes 11.5 million students. That's how many attend community colleges, junior colleges and technical schools. These institutions have been far slower to embrace advanced campus card solutions, but this appears to be changing.

The student demographics at community colleges are different as are the infrastructure and service needs. In the past these differences lessened the perceived need for many card applications. Today, however, changes in the educational system landscape are bring-

ing these campuses closer to their university counterparts.

Take housing for example. According to the American Association of Community Colleges, only about 25% of these institutions offer on-campus housing. Some mainstay card applications, such as dorm access control and laundry payments, center on housing environments. But these needs haven't been felt at the majority of community colleges. Similarly, campus dining and meal plan needs have also been significantly less in these environments.

Other frequently cited reasons for the reduced use of campus cards by community colleges

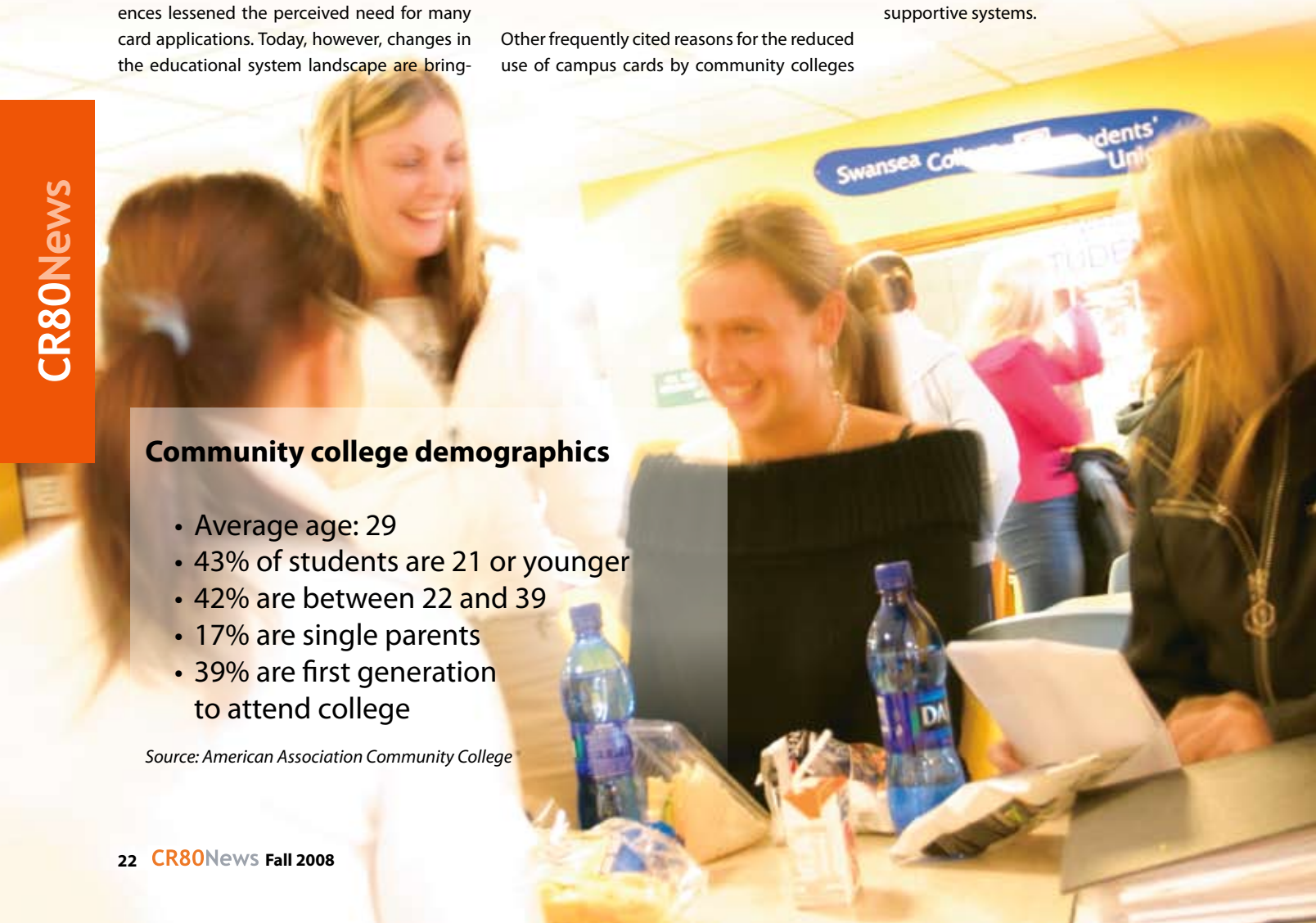
include more limited financial and staff resources, more dispersed geographic locations and lower student service expectations.

Whether these were legitimate reasons or not, the dramatic changes in the nature of today's community colleges have overshadowed them. Today many community college campuses are indistinguishable from traditional college and university facilities. Community colleges are becoming the first choice for many students pursuing higher education and these students expect robust services and supportive systems.

Community college demographics

- Average age: 29
- 43% of students are 21 or younger
- 42% are between 22 and 39
- 17% are single parents
- 39% are first generation to attend college

Source: American Association Community College



"Our community college customer base is broad and diverse, as are the needs of each school," says Randy Eckels, senior vice president, sales and marketing, for The CBORD Group. "Traditional applications such as dining, vending, bookstore purchases, and copying remain popular, but security is becoming more of a driving force as well, as is the case with four-year institutions." This includes applications such as access control, alarm management and intelligent video.

However, community colleges do have special needs not found in other institutions. For example, as Eckels points out, their security solutions can be spread widely throughout the city or county. "Many do not have traditional campuses like other universities, and offer classes and services in buildings dispersed throughout cities or entire metropolitan areas. Reliable controls are needed to restrict access to students and college personnel," says Eckels.

Blackboard has been actively working with community colleges for years. "We have established a solid base of community college clients and continue to see rapid growth in this market," says Jeff Staples, VP Marketing. "Community colleges demand enterprise-class ID solutions, and the need is increasing as many community colleges launch housing and dining programs."

Heartland Payment Systems, which began serving colleges last year, and then widened its outreach with the purchase of campus card provider General Meters, now currently serves 16 two-year schools, says Fred Emery, vice president and general manager for Heartland Campus Solutions.

"A large portion of our installs this summer has been at technical institutions and community colleges," says Emery. "It wasn't until five-years ago that systems like this gained traction among two-year schools. In the past 10 months we have added seven technical schools and community colleges to our roster of OneCard clients."

Emery says community college requests have included a full range of products including ID production, access, dining, bookstore, vending, laser printing, copier, parking, web-based applications and even some off-campus programs.

Some campus card providers feel community colleges are a perfect fit for their software as a service (SaaS) model. While cards are still issued, most everything else is managed over a Web-based service run by the provider. This reduces the amount of infrastructure investment colleges have to make.

"Our service model is ideal for smaller and distributed organizations," says Taran Lent of campus card provider CardSmith, Doylestown, Penn. "We have had unexpected (levels of) interest from both community colleges and private high schools."

CardSmith began serving community colleges last year and currently has two as clients, providing them with traditional campus card needs, such as dining, bookstore and vending. "Off-campus is a big deal for community colleges that may have limited on campus offerings," adds Lent.

CardSmith's other services to the two colleges include a total campus card management service that covers card issuance technology, program marketing, off-campus management, and an outsourced customer call center, says Lent.

Ireland-based campus card provider SmartCentric's customer base has been in universities rather than community colleges, says its CEO Kieran Timmons. "They typically did not have the budgets or resources required to implement SmartCity." But that's changing with its SaaS model, which makes it less expensive and less of a drain on resources. "We are currently talking to several community colleges about using the SmartCity SaaS model," adds Timmons.

How big is the opportunity?

Community colleges offer a great opportunity for campus card providers to expand their client base. According to the American Association of Community Colleges, there are 1,164 community colleges – 987 public and 177 private – in the U.S. Add in branch campuses, and the total rises to 1,600.

Surprising to many, community colleges enroll nearly half (46%) of all undergraduates. That's a lot of campuses, a lot of cardholders, and a lot of room to grow for a group of companies that have long battled each other for a finite number of potential clients.



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Rewritable printers reuse plastic cards

But is it a cost effective, greener alternative or a fad with serious security risks?

Andy Williams

Contributing Editor, AVISIAN Publications

For some members of the card printing market, it's hard to justify costs involved in printing rewritable cards, while for others, like HID Global, it's an untapped, perhaps under-served market.

Rewritable cards are plastic ID badges that when issued with specialized printers enable the same cards to be erased and rewritten hundreds of times. The rewritable printers use heat to change the information printed on the card. In Fargo's rewritable printing process, the ribbon is actually removed from the printer and the printhead comes in contact with the card. The heat from the printhead reacts with the card's special finish to produce the printed image. The type of finish used by the card manufacturer determines the image's color, generally

blue or black, explains Apryl Erickson, senior channel marketing manager for Fargo products at HID Global.

"Rewritable printing is an excellent option for several specific applications," says Erickson. She admits that, as a technology, rewritable printing doesn't provide "the high level of security, nor a full-color glossy image like with our HDP-branded printers, but the ability to print and erase cards 200 times can stretch ID budgets in ways that satisfy end users with other priorities."

Fargo's rewritable printers are geared toward the entry-level or mid-level markets, she adds. That means lower costs – less than \$3,000 for

Persona C30e Quick Facts



Manufacturer: HID Global/Fargo

MSRP: \$2,295

Print Method: Dye-Sublimation / Resin Thermal Transfer

Print Speed: 35 seconds per card (YMCKOK)

Add-ons:

- Smart card encoding modules
- Magnetic stripe encoding module
- Dual-sided printing
- Ethernet connectivity with internal print server

Fargo DTC400e Quick Facts



Manufacturer: HID Global/Fargo

MSRP: \$2,895

Print Method: Dye-Sublimation / Resin Thermal Transfer

Print Speed: 35 seconds per card (YMCKOK)

Add-ons:

- Smart card encoding modules
- Magnetic stripe encoding module
- Dual-sided printing
- Ethernet connectivity with internal print server

Fargo's two rewritable models – the entry level Persona C30e at \$2,295 and the mid-level DTC400e for \$2,895.

Geraldo Talavera, Evolis' managing director, describes how his company's line of rewritable printers works. "The card itself includes a thermo-sensitive material which becomes visible when heated at a temperature of 180°C, followed by rapid cooling. When a lower temperature is applied, typically between 110°C and 160°C, the color disappears. The thermo-sensitive material is laminated on a plastic substrate to make cards."

HID suggests using rewritable printers with other technologies. "We manufacture an iClass contactless card with a rewritable surface, say for visitor or temporary badges for contractors or employees who need access to facilities for temporary periods," says Erickson. "Issuing iCLASS cards can become quite expensive to such parties but it makes sense when you can leverage that expense over a number of uses with the rewritable card."

The opposite side of most rewriteable cards feature a standard PVC finish that can be personalized like any other card. The cards cost more than \$2 but with 200 uses, that's about a penny per each visitor.

Rewritable cards find a niche in education, visitor and loyalty applications

One use for this type of card is in K-12 education. "We have a large pilot project outside the U.S. where the government has mandated that all

students carry a photo ID, with one side containing the rewritable information, such as a class schedule, bus schedule, emergency contact information, etc. The reverse side has the full color identification information, including the student's photo," says Erickson. With this school application, the school batch-prints the front of the card in full color with ribbon and prints the variable data and class schedule on the reverse, rewritable part of the card, during school registration.

The loyalty card market is another niche. "Businesses encourage customers to carry their cards and keep track of their purchases. Accumulated value imaged onto the card is more secure than with paper punch cards. And, updating and erasing points is easy since it's simple to remove the cartridge-based ribbons from the Fargo printers," says Erickson.

Fargo is seeing a lot of demand for these printers, "especially from price sensitive markets," she adds. "Obviously if you're able to buy a card and use it 200 times, you're saving quite a bit of money."

Talavera says the major uses for rewritables are in loyalty applications. "Bonus points or special offers are printed directly at the point of sale after each transaction," he says. "They are also a good choice for visitor badges. The same card can be used to erase the info of a visitor and print it for a new one. In sophisticated applications, the card will include contactless chips allowing identification of the holder and giving access to specific areas of the building. The printer is then part of the visitor management system, including software, visitor database and card readers."

Datacard SP25 Quick Facts



Manufacturer: Datacard
MSRP: \$1,645
Print Method: Direct-to-card / rewritable
Print Speed: 12.4 seconds per card (full card erase and rewrite)

Add-ons:

- Magnetic stripe encoding
- Smart card personalization (Contact/contactless all-in-one reader)

Evolis Tattoo Rewrite Quick Facts



Manufacturer: Evolis
MSRP: \$1,740
Print Method: Monochrome direct thermal (black or blue) - Erasable & rewritable; Line mode for text, barcode and logos; Diffusion mode for image/photo printing
Erase/print cycle: 8 seconds

Add-ons:

- Magnetic stripe encoder
- Contactless encoding unit - ISO 14443A
- 100-card additional feeder

Many printer manufacturers offer rewritable models

Evolis Card Printer has its Tattoo Rewrite card printer that can print and erase the same card up to 500 times, says Talavera. "Because no ribbon is necessary, Tattoo Rewrite is a cost-effective and environment-friendly solution."

Grambach, Austria printer manufacturer, CLEARjet, has been focusing on reprint technology for smart cards, says Kerstin Grabner, marketing and sales. "Projects worldwide show the success of rewritable smart cards, such as student ID cards, electronic tickets in public transport and for events, ski passes, visitor and employee id cards, club and loyalty cards and many more."

The company's line of CX-one rewrite printers include some which can produce photos and all which can be delivered with integrated read/write devices for contact and/or contactless chip cards as well as mag stripe modules, she says. Pricing starts at around \$3,495 for a standard printer without any options.

The CLEARjet printer relies on thermal technology to heat the card and change the information. "When equipped with a read/write module for chip, RF chip or magnetic cards, the information also can be changed electronically in your card," she adds.

Grabner says there has been a demand for such printers. "The focus is to find an application for reusing the card and update information on the card as well as electronically in the card. You don't have to throw the card away after use. This level of reusability and update possibility ensures that the costs of electronic systems are drastically reduced."

CLEARjet CX-one Quick Facts



MSRP: \$3,495

Print Method: Monochrome, greyscale full graphic thermal print head system

Encoding modules:

- Magnetic encoder
- Contact chip encoder
- Contactless chip encoder

Add-ons:

- Print head
- Erase module

Datacard Group's entry-level rewritable printer is the Datacard SP25 which "offers both full-color/monochrome card printing and rewritable card technology," says Mark Andersen, head of desktop product and industry marketing. Suggested retail, he adds, is \$1,645, "which, to our understanding, is the lowest cost card printer offering both rewritable and full-color card printing capability in one printer."

As for demand, this is still a somewhat new market, he says. "The markets/applications we are targeting are retail, visitor management, transportation, education and entertainment. The possibilities for creative uses of this technology in various applications are unlimited."

A dissenting view questions the viability of rewriting cards

Digital Identification Solutions doesn't feel the same way. The company doesn't offer a rewritable card printer, says Shane Cunningham, the company's marketing manager for the U.S. and Canada. "The most important reason is the major reduction in the security of the card," he explains. "If you have a card that can be rewritten, all I need is a printer to rewrite it, and I can fake your cards whenever I want. It's about as secure as putting stickers on a card to validate it. It was designed as a convenience to the end user, but with the extremely low cost of standard PVC cards and inexpensive direct card printing, it doesn't make much sense to us."

"Reissuing a rewritable temporary ID may sound like a good idea, but the real question is whether an ID is really needed at all for visitors," adds Cunningham. "If it needs to be personalized, is it because your facility honestly needs to be secure? If so, a rewritable card is an unnecessary risk. If your facility doesn't need to be secure, then what is the need to re-personalize the visitor card? Why not just issue generic visitor IDs that can still be tracked in the system and reused for the next visitor?"

With loyalty cards, "I have yet to see an instance where re-printing a card can handle what re-encoding it already can do better. The purpose of a loyalty card is to advertise the issuing company and linking the user to the benefits offered. I imagine that a discount card could be used up by one end user, and then returned and re-issued to another, but not without a significant amount of loss or damage of the card beyond re-use. The savings for the number returned and re-issued would have to be significant to validate the switch in technology. If the turnover is that quick, then paper or Teslin cards might be more cost-effective."

He states that his customers are "looking for secure credential solutions with layered methods for making the card tamper resistant, not just a means for cheap card personalization. We know of a few venues that thought the idea of rewritable cards sounded interesting, but we haven't seen any demand for it at all. We see this as a buzzword technology that may create enough public interest to make some initial sales, but does not have lasting market value."

While some don't see the need for rewritable cards there are, schools and retailers that have seen the benefit. It seems to be a complicated equation in which cost, turnover, security and a host of other variables must be considered. And it's clearly an equation that changes with each specific issuers environment. Whether or not the market for the cards will increase or decrease, only time will tell.



European Campus Card Association conference highlights great progress

Danny Smith

Vice President, ColorID



More than 120 university attendees traveled from all across Europe to Lodz, Poland to attend the 2008 European Campus Card Association (ECCA) Conference. As the only attendee from North America at this year's conference, I wanted to share an overview of my experience.

ColorID has sponsored and attended the ECCA conference since the inaugural conference in Waterford, Ireland in 2002. Each year attendance of the ECCA conference has grown and this year's event set an attendance record.

The Technical University of Lodz hosted the 2008 conference. The university is one of Poland's largest universities and serves a student population of more than 20,000. Michael Strzelecki of Technical University of Lodz was the main organizer of this year's event.

It is really interesting to see the common challenges between the U.S. and the European card programs. In the end it's the same, we're still trying to maximize the available card system technologies to its fullest. Our European counterparts face similar systems limitations and obstacles.

In North America, the National Association of Campus Card Users (NACCU) has done a tremendous job of promoting and encouraging card system development by bringing institutional and corporate members together. The ECCA has taken a similar approach in this direction and it is really evident with the European Education Connectivity Solution (EECS) project.

Eugene McKenna of Waterford Institute of Technology, Ireland and Tor Fridell of Linkoping University, Sweden gave a presentation on the connectivity solution, which has been driven by ECCA. The goal of this project is to provide standards, mobility and interoperability among European campuses. A comprehensive project proposal has been submitted for funding to the European Union (EU) and ECCA members are waiting to hear the outcome.

While there are many common characteristics between the European and North American card systems, there are also significant differences.

For instance, it would be the exception to see a magnetic stripe on a student ID card in Europe. Most schools are using contact or contactless technologies and in some cases, both. Most of the contactless technology is MIFARE.

Also some countries, such as Croatia, Poland and Hungary, have national university ID cards that are mandated by their government. I was surprised to learn that many of these ID programs are highly developed and a good number utilize "home grown" solutions involving contact or contactless technologies.

Overall, the ECCA membership is very much like the NACCU membership. Everyone is willing to exchange information, ideas and suggestions. The camaraderie of the attendees has grown each year and many attendees stay in contact throughout the year.

Next year, the ECCA conference will be held on the coast of the Adriatic Sea in Croatia, hosted by the University of Zagreb. The Europeans have embraced advanced technologies and are moving forward with solid applications and solutions. I'm sure you would find attending to be a worthwhile investment and will come away with new ideas and solutions.



ie:ID Podcast



Standardizing campus cards across Europe

Eugene McKenna, Waterford Institute of Technology, spoke with CR80News editor Chris Corum about the efforts underway to develop standards for campus card programs across Europe. The European Union is currently considering a proposal to provide funding for the project, which is being called the European Education Connectivity Solution. Listen to the podcast online at www.cr80news.com/podcasts.



Helping international students navigate U.S. banking system

Students from abroad, who are attending college in the U.S., have a lot of adjustments to make. More than likely they have to deal with a new culture, perhaps master a new language, learn their way around campus and more. They also have to learn a new currency, and how to deal with this country's banking system.

Situations involving foreign students are where a school's banking partner can help. For example, U.S. Bank offers special seminars for international students during orientation.

"They need a unique orientation separate from other incoming freshmen," explains Whitney Bright, vice president of campus banking for U.S. Bank. "International students are notorious for bringing large quantities of cash. I'm always amazed how many show up with cash, even as much as \$10,000. So their immediate need is to open a bank account.

"Many foreign students need more help due to the language barrier. While they speak English, they're not as fluent in banking terminology. It's not something they're normally taught when they're learning another language," says Bright. U.S. Bank tries to bring bankers who speak other languages to these orientation sessions.

At these sessions, international students are given a general understanding of how our banking system works, says Bright. "We teach them to use the Internet to manage money, how to write checks and

most importantly how to use their debit cards. And we explain about wiring money because it gets there more quickly. We also encourage them to open an account in the United States to make access to funds more convenient," says Bright.

Bright points to one of its partners, Xavier University in Cincinnati, as an example of how these orientation sessions work. "We're very involved with the international student programs at Xavier. When these students come in, one of the things we do with them is take them into a computer lab and show them how to log in, how to get their accounts open and walk them through it, screen by screen. That's been really successful. Different schools have different ways we can work with their students."

It was one of those international students who first came up with the idea for working closer with this group of students. "There was an international student studying at Xavier who ended up working at U.S. Bank. He eventually became branch manager of the branch on campus. This was a group of students near and dear to his heart and he was one who thought of training them in the computer labs," says Bright.

At one of the bank's partners where there is no on-campus branch, international students are transported by bus to the nearest U.S. Bank, says Bright. "We do that after hours or on a Sunday so we open that branch especially for these students to give them the individual attention they need."

The bank also has a "banking guide" written specifically for international students, she says.

The guide covers how to open a bank account and what's involved, answering common question, such as, what form of identification is needed to open a U.S. Bank checking account?

The guide also covers how to make international wire transfer, obtain a money order, make an actual bank deposit, how to balance the checking account and avoid identity theft.

For U.S. students studying abroad, U.S. Bank has help for them too. An FAQ covers how parents can make deposits and whether students should carry credit cards, debit cards, cash or traveler's checks. US Bank recommends traveling students carry credit cards, since not all areas accept particular brands of traveler's checks.

Another suggestion that students or parents may not think about is to notify banks prior to traveling abroad since your spending habits will suddenly change. This could red flag bank card as possibly stolen. Students are also strongly advised to bank via the Internet while abroad. Students should also know the conversion rate of the U.S. dollar versus other currencies as well as possible foreign transaction fees.

It's pretty obvious that first year students of all stripes can benefit from many of these same guidelines.

In fact, other than the extra amount of time spent with international students coming here, many of these tips are included in the normal U.S. Bank-sponsored orientation session for all new students, says Bright.

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University banking partnerships: What's in it for the students?

Universities have a lot to gain with their banking partnerships. Besides adding to the bottom line, financial institutions can help colleges improve their campus ID programs. Banks also benefit by establishing contact with customers when they're young, which can potentially lead to a lengthy banking relationship down the road. But while the schools and banks benefit, there has been some question as to what the student gets out of these university banking partnerships.

Formal banking partnerships link a student ID card to a bank account. While students aren't required to use the bank account, many do it because it's convenient. The cards provide students easier access to their money. In fact, those were the two advantages cited by those students who were interviewed.

"There are many times where I do not have my wallet," says Christopher M. Schroeder, a senior majoring in finance at Xavier University in Cincinnati. "I rarely carry cash. But I usually at least have my student ID on me."

He sees no reason to change bank accounts once he graduates. "As far as I know, I should still be with U.S. Bank when I graduate. I am very satisfied with the service so far."

Florida State University in Tallahassee, Fla. has a banking relationship with SunTrust, a regional bank serving the southeast. Elena Mlotkowski, an FSU junior, says she decided to link her ID card to a SunTrust bank account because the bank was on campus and her parents set it up.

She uses the card linked to her account for "banking and buying stuff with my debit account" at merchants on- and off-campus. More importantly, at least from SunTrust's perspective, is that Mlotkowski will "probably" stay with the bank after she graduates.

Rachel Hewitt, another FSU student, says her card is linked to SunTrust because she receives financial aid through the account. She mainly uses her FSU card for on-campus purchases and to buy gas. "Many merchants take the FSU ID. However, outside of Tallahassee I can't really use it," she adds.

Katie Carlsen, a student at University of Wisconsin-Eau Claire, another U.S. Bank institution, has been able to view the student ID world from the inside. She works in the campus ID card office. "I made the decision to open an account with U.S. Bank and get a Maxx card."

Her primary uses for this account are storing financial aid disbursements and paying bills that are school related. Carlsen also maintains an account with another bank.

Carlsen is unsure whether she will stay with U.S. Bank when she graduates. "I have a year of school left and I am not sure where I will be and what I will be doing after graduation. Those things will help me decide what to do with my bank accounts."

This symbiotic relationship between students, their universities, and the banks that partner with the schools has yielded rewards for all three, at least in these scenarios. The major goal for both college and bank is keeping the student happy and not over burdening him with extra fees.





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