Migrating to RFID Access Control

Door locks are not only a basic element of a college or university campus safety plan, locking assets in and intruders out; they also keep students moving into the places they need to be. Where do campus administrators begin when selecting door lock technologies? What technologies will provide versatility for multiple access requirements like general public halls, private rooms, or highly-secured laboratories? What choices meet today’s needs yet can be changed for tomorrow’s technologies and purposes?

One of the first tasks is providing appropriate access to dormitory room doors and other campus entries. For generations campuses have used mechanical locks and keys to protect people and assets. Many of today’s students are still using that same technology employed by their great-grandparents.

Electronic access control using magnetic stripe cards was introduced to campuses in the 1970s. The cards and readers offered immediate improvements in security over locks and keys, but this aging technology is no longer considered a best practice for meeting the needs of a modern campus.

Today, increasing numbers of campus housing directors and other administrators are migrating to radio-frequency identification (RFID) locks and cards which offer significant advantages for keeping dormitory residents and other students, faculty and staff safer and more secure.

Here is a closer look at these three access control choices and ideas for migrating to a newer, more secure technology.
RFID cards contain smart chips capable of storing data in multiple layers. The data levels, much like a directory/subdirectory/folder structure on a computer, hold more information than a magstripe card. Different classes of cards store different levels of data, bringing several benefits to facilities that use RFID cards. Some cards can be shared among RFID services; for example, a campus card may be used for meal credits, library books, and lab supplies. Multiple data levels also make a card more secure. Information in the deep levels is more difficult to access by illicit means, and encryption can be applied at every level in the card.

The chips inside RFID cards are durable. The credentials are also available in different formats such as fobs and wristbands. There is no reason to worry about the cards being demagnetized or scratched in a backpack. Since they are contactless, neither RFID cards nor lock readers will wear out from repeated use. And RFID cards can also be quickly deleted and replaced in the campus system.

Magstripe cards use an iron-based magnetic film – very similar to a piece of audio cassette tape to record and retain data relevant to the card holder. Students unlock their dorm rooms by swiping their card through the lock's reader.

But there are now quick and inexpensive ways to capture magstripe data and transfer it to a blank card.

Durability is another concern. Magstripe data can be easily lost or corrupted. The cards can wear out from repeated swipes through a lock reader. Even the readers require regular maintenance and tend to wear out more quickly than other reader types.

With only three data tracks on the stripe, there is limited ability to share the card with multiple campus departments. Also, data can be lost when cards are scratched while being carried loose in a backpack, purse or pocket. Some older magstripe cards can even become demagnetized and lose data when placed in very close proximity to devices such as mobile phones, televisions, radios and microwave ovens that produce their own magnetic fields.

Mechanical locks and key create effective barriers. But keys can be lost and stolen. They can be copied again and again – even those with “Do Not Duplicate” stamped on them. Once a lock’s security has been compromised, it must be rekeyed by a locksmith in an expensive and time-intensive process. Also, new keys must be cut and distributed to affected students. Intruders can also use devices known as “bump” keys,” to defeat a mechanical lock in seconds.

Key management – matching keys to doors and people – can be challenging on a large campus with potentially thousands of doors and many more students.
Suggestions for moving to RFID

With features such as added security, durability and versatility, it is easy to see why many housing directors and other campus administrators are migrating to RFID-based access systems.

The change makes sense for virtually any college or university campus. But how do you begin if your campus is fully deployed with keylocks or magstripe systems? Start by creating a migration plan. That may begin with a single dormitory building or an entire campus sector. RFID is a very scalable technology.

You can smooth the transition by issuing affected students new dual technology cards capable of working with both RFID and the remaining magstripe readers they will encounter on campus.

The students will be prepared the day the new system is installed. Some students on campuses relying on key locks may have to carry both an RFID card and a key until the total migration is completed.

There are options for making the change. In some cases, locks must be replaced. But if your campus is already using Onity magstripe locks, you can eliminate the need to cut doors and replace cover plates. In any case, the job can easily be completed during a summer break.

By migrating to an RFID system, you are protecting your investment. The modern architecture of RFID technology ensures your new locks and cards will work with developing solutions well into the future.

Administrators can rest easy when their door locks are appropriately granting or restricting access to dorm rooms and other campus facilities, and turn their attention to other pressing issues with confidence.

You can learn about changing systems from the professionals at Onity. We will help create a plan that meets your timetables and budgets. We will even help you program your new dual-technology cards using our broad spectrum of RFID protocols, easing your campus-wide transition across more than one technology.

With its roots as a lock manufacturer dating back to 1941, Onity knows locking solutions and effective upgrade plans. Onity locks are currently used by more than 300 colleges and universities.

For more information about Onity and our line of Integra RFID locks, please visit www.onity.com.

Onity Inc.
4001 Fairview Industrial Drive SE
Salem, OR 97302

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10/2018 (GSP-2365)