

CONTACTLESS TECHNOLOGY

**IMPROVES
CAMPUS
SAFETY
AND
DECISION
MAKING**

by Adam McDonald

Contactless technology was already coming to campuses before the pandemic, but the challenges of COVID-19 expedited implementation. These technologies have helped campuses adapt during the pandemic and will continue to support them into the future.



Not only does contactless technology promote safety through reducing physical contact, but it is also more secure from a data and security standpoint, as well. In addition, such technology provides many benefits resulting from digitizing processes: increasing speed of service, generating useful data, and integrating systems. More than a solution to a public health problem, contactless technology enables efficient and effective operations and business processes.

Creating a contactless campus involves three initial steps, outlined below:

Enabling NFC

Near Field Communication (NFC) is a contactless communication technology designed to exchange data between two devices. The technology has existed for more than a decade, but recent trends in consumer behavior accelerated by the pandemic have brought it to the forefront.

For example, NFC allows customers to pay for a cup of coffee by tapping their smart phones at a market's checkout. The technology increases the speed, accuracy, and security of the transaction as compared to traditional payment methods.

NFC can be applied to upgrade services campus-wide. It improves access by providing centralized, instant, and flexible control over opening and closing buildings and rooms. After virtual queuing is set up, NFC promotes social distancing by enabling self-checkout of books and equipment. It automates and increases the speed of credential verification, allowing digital check-in for classes. If implemented with biometric identification technology, it improves the accuracy of verification, as well.

Going Mobile

Students already do many of their daily activities via their phones, and they bring that expectation to campus. For instance, the use of digital wallet and QR code payments are increasingly common on campuses, and market studies indicate such payment options are on pace to become more popular than credit and debit card purchases.

The popularity of mobile payments is due not only to customer preference but because of the benefits to merchants and institutions alike. Mobile NFC is more secure than a traditional swipe or dip transaction, offering an advantage in today's environment of data breaches and fraud. Rather than traditional forms of encryption, mobile NFC payments use tokenization to turn sensitive card data into a one-time, unique code that cannot be deciphered and reversed back to its original form.

Not only does contactless technology promote safety through reducing physical contact, but it is also more secure from a data and security standpoint, as well. Such technology also provides many benefits resulting from digitizing processes: increasing speed of service, generating useful data, and integrating systems.

Heading to the Cloud

Basing technology in cloud computing offers administrative, security, and financial benefits. Cloud computing is also becoming the default option for many software solutions, so making the transition to the cloud now can get campuses ahead of the curve in best operations practices.

Cloud computing cuts out the cost of purchasing and maintaining on-premise hardware and software; it also decreases the headaches of compatibility—users no longer need to guess and predetermine the physical infrastructure capacity needed before using new technologies. Instead, the virtual infrastructure can be expanded and contracted whenever needed, and the expensive and labor intensive process of upgrading infrastructure is no longer needed.

Data backup and disaster recovery is made easier because of networked backups, and overall continuity of system operations is smoother. Disasters caused by power outages, break-ins, and other types of physical disruptions are reduced, if not eliminated, since the computing is virtual, not physical. As cloud vendors configure computing to an institution's needs, security is tailored to the unique shape of the infrastructure, and the design can be changed when needed. Additionally, since cloud services are built with modern parts and tools to integrate modern systems in modern ways, systems are more securely woven together. Whether configuring or updating, cloud vendors provide proficient service thanks to their focused expertise and dedicated personnel; this resource also relieves a burden from campus

IT. Once mobile, cloud-based NFC is established on campus, the contactless campus configuration delivers key benefits, as follows:

Monitoring

Because these technologies are capturing data from students as they move about and engage in activities on campus, they allow for real-time monitoring and immediate decisions and reactions. Doors can be locked and unlocked when and where needed. Text messages can be sent to students about transit disruptions, inclement weather delays and cancellations, safety concerns, and other important campus alerts, with the ability to broadcast to an entire campus or specific groups. Staff can deliver service quickly, accurately, and often remotely. Altogether, students and staff can save time and effort on a routine basis.

Data

Outside of real-time monitoring and reactions, the data generated by contactless campus technologies can be analyzed for patterns to inform predictive decision-making and proactive planning. Transportation services can trace patterns in the locations and numbers of riders to plan how many buses are needed when and where. Dining services can track dining hall attendance for weekly and daily ebbs and flows and adjust schedules, services, and order accordingly.

Staff can also improve services by drilling down from group to individual data. For example, a student's smartphone opens doors, purchases class materials, pays for lunch, registers for events, and checks into classes. These activities generate data which, when located in the cloud, can be synthesized into a fuller picture of a student's life on campus and progress to degree.

Analysis of data for crucial patterns can notify advisory services of a potential problem before it happens or in real time. Human and automated responses can then step in with timely reminders, resources, and remediations to keep students enrolled, supported, safe, and moving forward to their goals.

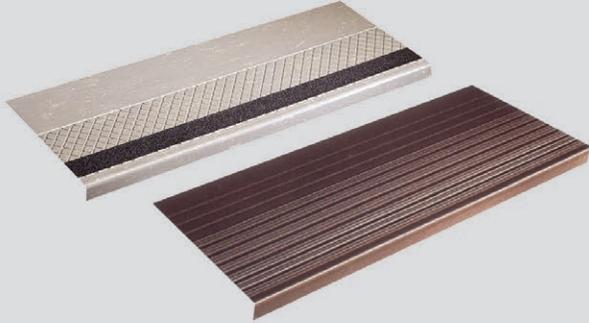
For campuses to be able to act on individual data, students must have the opportunity to opt-in to sharing it. Institutions must ensure the data is gathered, handled, and purged when needed in a responsible, secure manner.

Real Integration

Linking together NFC, cloud computing, and mobile phones connects technology and the administrative processes it supports.

ONE SOURCE FOR ALL YOUR FLOORING NEEDS

Rubber & Vinyl Stair Treads for Interior Applications



Sheet Rubber



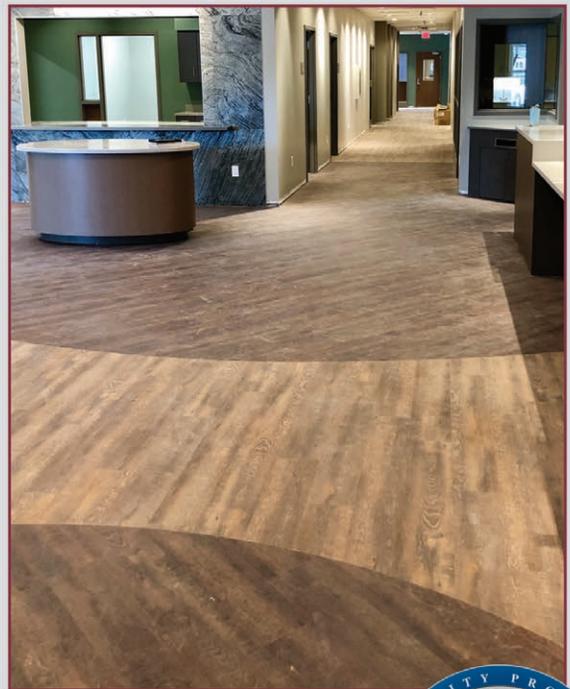
Entrance Matting



Rubber Stair Treads for Exterior Applications



40 Mil IVT



For more information
visit our website at
www.mussonrubber.com
or email us at
info@mussonrubber.com



MUSSON RUBBER CO.

P.O. Box 7038 • Akron, Ohio 44306
800-321-2381 • Fax 330-773-3254
info@mussonrubber.com • www.mussonrubber.com

When a payment system, a credential system, and a student information system integrate, staff gain a holistic view of each student and how the systems can work together to support them. A full, unified view generates insights on strengths and weaknesses, and staff can more accurately and effectively make improvements where necessary and sustain what is working well.

As previously siloed systems interact, a new ecosystem with new capabilities emerges. When a payment system, a credential system, and a student information system integrate, staff gain a holistic view of each student and how the systems can work together to support them. A full, unified view generates insights on strengths and weaknesses, and staff can more accurately and effectively make improvements where necessary and sustain what is working well.

From a student perspective, an integrated system provides a unified experience and a more engaged campus life. For example, when an unpaid bill prevents a student from registering for a class, as soon as the bill is paid, restrictions are released and the student's life is back to normal. No more frustration of waiting days for campus systems to communicate.

Less Contact, More Capabilities

Pivoting to the requirements of a new paradigm is never easy, but with contactless technology, campuses can increase safety while modernizing and integrating operations with many benefits to students and staff. The technology that creates

the contactless campus provides monitoring of and data on the activities it enables, fostering systems integration. This monitoring and data can improve processes and procedures, help students achieve better outcomes, and ultimately contribute to student and campus success.

By reducing time and money spent on safety measures, traditional service methods, and connecting disparate systems, contactless technology allows institutions to return focus to serving their students and fulfilling their missions with newly modernized, efficient, and effective capabilities. Today's creative problem-solving can shape a better future. ■



ABOUT THE AUTHOR: Adam McDonald is the President of TouchNet. He has spent his entire career in the software industry and draws from that experience to steer TouchNet's product and process innovation and ensure consistently exceptional customer experience. McDonald is a graduate of Dartmouth College, where he earned his bachelor's degree in history.

SUPERIOR LOCKERS AMERICA'S MOST COMPLETE LOCKER LINE®

METAL • PLASTIC • WOOD • PHENOLIC

MADE IN AMERICA SINCE 1936

+ MED SAFE
ANTIMICROBIAL FINISHES

Our Metal Lockers are available with MedSafe™ antimicrobial finishes with Microban®, formulated to protect against bacteria, mold, yeast & mildew for up to 20 years! Very beneficial for educational, healthcare, food processing and other hygiene conscious environments.

WE ARE
GREENGUARD GOLD
CERTIFIED

CONTACT US FOR ALL YOUR LOCKER ROOM NEEDS
800-776-1342
✉ info@ListIndustries.com 🌐 ListIndustries.com

38 PRIVATE UNIVERSITY PRODUCTS AND NEWS

pupnmag.com

University Communication Solutions

Introducing Icom's **LTE-CONNECT** System



IP501H

License-Free LTE Radio



Instantaneous push-to-talk communications throughout North America. The LTE-CONNECT radio system provides telephone style conversations, packed with conventional two-way radio features. These license-free radios operate on an Icom controlled, private and secure 4G network. This LTE radio solution is perfect for those support, safety and security teams in need of simple, yet wide-area communication solutions.

- License-Free
- Full Duplex Communication
- Individual / Group / All Calls
- Mobile Companion (IP501M)
- Text Messaging
- Fixed Monthly Cost
- Compact & Lightweight



www.icomlte.com
connect@icomamerica.com

©2021 Icom America Inc. The Icom logo is a registered trademark of Icom Inc. 21126

