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JUNE 2023
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FEATURES

20

Streamlining Communication Platforms

It is hardly a secret that higher education enrollment is in a state of decline, and of course the pandemic only added fuel to the fire. Overall enrollment fell 4.1% between May 2021 and May 2022, and the National Student Clearinghouse Research Center notes that the total undergraduate student body has shrunk by 9.4 percent since the pandemic began. The slide in enrollment since 2018 is the steepest on record, according to the U.S. Bureau of Labor Statistics.

26

Inspecting Fire Sprinkler Systems

Among the requirements needed to keep commercial fire sprinklers working and code compliant are the routine inspections, which can seem complex. Most of the inspection, testing, and maintenance of sprinkler systems requires a qualified life safety professional, but some of the work can be done by in-house facility personnel.





30

Showcase of Excellence 2023

Our readers requested from us a special annual feature highlighting providers who offer quality products and services for private colleges and universities. This "Showcase of Excellence," which appears each year in our June issue, is filled with ads that present both case studies and product showcases from service and product providers exclusive to the higher education market.







COLUMNS



SPOTLIGHT / ON OUR COVER



Leveraging Coursera Career Community at Hawai'i Pacific University

Mark Rosenbaum, Dean of the College of Business and Professor of Marketing at Hawai'i Pacific University, has drawn on his deep understanding of HPU's place and stakeholders to develop an exciting, groundbreaking initiative. After assessing the history, strengths, and needs of HPU's College of Business, Rosenbaum spearheaded the formation of a partnership between Hawai'i Pacific University and Coursera's Career Academy—the first partnership of this kind in the world.

SAFETY & SECURITY

Top Questions to Ask When Investing in Wireless Locking and Access Control

Much has been made over the last decade about wireless locks and the effort by lock manufacturers to bring access control to the countless number of interior doors in a facility.



pupnmag.com JUNE 2023 **5**

Editor's Letter

JUNE 2023



As the sun peeks out from behind the clouds and the temperature rises, it's clear that summer is finally upon us. Memorial Day weekend just passed, marking the unofficial start of the season. Whether you're planning a long weekend getaway or simply looking forward to some relaxing time with family and friends this month, this is the perfect opportunity to kick back and enjoy the beginning of summer.

But before we dive headfirst into the fun and sun, I wanted to take a moment to share some exciting news. We have a special treat for you in this issue—the annual Showcase of Excellence special section! This highly anticipated feature highlights premier companies and their extraordinary products and services that you, our esteemed readers, have specifically requested to learn more about. From innovative technology solutions to cutting-edge products for your multiple-building facilities, the Showcase of Excellence will provide a comprehensive glimpse into the best these companies have to offer.

In addition to the Showcase, this issue is filled with captivating articles that cater to your evolving interests and needs. We understand that creating a comfortable and inspiring environment for students is paramount, which is why we've dedicated a substantial portion of this issue to exploring today's trends in furniture and access controls. Discover how institutions are revolutionizing learning spaces and implementing state-of-the-art security measures to ensure safe and enriching educational experiences.

As always, our mission is to bring you the latest and most relevant insights for the private higher education landscape. We strive to provide you with a well-rounded magazine that not only informs but also inspires and connects you with the incredible work happening across private higher education.

So, as you bask in the warmth of the sun with the beginning of summer, enjoy this information-packed issue. We are excited to share the Showcase of Excellence and the engaging articles covering furniture, access controls, and rec and fitness centers with you. We hope you all have a fantastic start to the summer season, filled with relaxation, laughter, and cherished moments with your loved ones.

Wishing you all the best, Ed Bauer Publisher Private University Products and News Magazine ed@pupnmag.com



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Leveraging Coursera Career Academy at Hawai'i Pacific University

BY CYNTHIA MWENJA, PhD

Mark Rosenbaum, Dean of the College of Business and Professor of Marketing at Hawai'i Pacific University, has drawn on his deep understanding of HPU's place and stakeholders to develop an exciting, groundbreaking initiative. After assessing the history, strengths, and needs of HPU's College of Business, Rosenbaum spearheaded the formation of a partnership between Hawai'i Pacific University and Coursera's Career Academy—the first partnership of this kind in the world.

Articulating and Facing Challenges

As many of our readers know, small liberal arts colleges can face a number of challenges. One such challenge is making courses and their delivery engaging for students. Students are now accustomed to taking in information on their own terms—they desire to "learn in small snippets at various times, based on their individual schedules," Rosenbaum says. When we think of how people interact with services like Netflix, he observes, we can easily see how the traditional business lecture has become outdated. Unlike hands-on programs like nursing and engineering, Rosenbaum states, business courses at liberal arts institutions have often relied more on lecture and less on active learning. Previously, students attended business colleges, however, because that's where the knowledge was available. Now that people can access information and education in multiple ways, Rosenbaum notes that schools must find new ways to keep students engaged. When he became Dean, Rosenbaum saw that students seemed unenthusiastic about their classes

and, at times, even the incredibly beautiful location. Jasmine Kauhane, Senior Assistant Director of Admissions for several of HPU's graduate programs, says that location has traditionally been a big draw for the Honolulu campus—not just for those who come from other places, but for those in the local community, as well.

Another challenge facing a number of small liberal arts campuses: many universities in high-cost areas can have difficulty recruiting people who have terminal degrees. Rosenbaum himself could have easily been in that situation. He happened to have lived in Honolulu from 2003-2006, and he bought a condominium that he kept when he moved on. He remarks that he might not have been able to return to the area if his home were not available—the cost of living has skyrocketed on the island.

Additionally, faculty at smaller institutions with higher teaching loads often struggle to find the time to be up to date with every aspect of their fields—and the struggle is getting more intense. Rosenbaum states that ten or twenty years ago, STEM

fields generally experienced incremental change. Around 2015, though, he saw that change become revolutionary. For example, he prepared a digital marketing lecture on a weekend in 2017 at the University of South Carolina. By Tuesday, before he gave the lecture, the WIX dashboard had changed. This experience made him realize that industry would have to help in the education process, since information could constantly change between preparation and lecture.

One challenge Rosenbaum faced when he became dean was particular to HPU. A decade previously, HPU administrators decided to move toward becoming a research-focused institution, despite the school having been primarily a teaching university with a long history of having a business college. The business college, in particular, with its location in downtown Honolulu and proximity to the city's business district, generally caters to students who want practical skills—so changing to a research orientation is "not easily achievable in one day," Rosenbaum remarks; he had to consider the practicalities of such a move.



Business schools at research institutions generally seek accreditation through the AACSB, which is the "most recognized form of specialized accreditation that an institution and its business programs can earn," as its website states. The accreditation standards require that the majority of credit hours offered at an institution be taught by people who have terminal degrees in their fields. As Rosenbaum points out, small, private liberal arts campuses—particularly those who lack significant endowments, such as Hawai'i Pacific-struggle to afford the salaries required to meet this AACSB requirement. As a result of pursuing the AACSB accreditation, Rosenbaum notes, Hawai'i Pacific left the military bases where they had satellite programs because they couldn't staff the hours with faculty who had the required qualifications. With the pursuit of accreditation, the hiring focus

"Coursera is a global platform for online learning and career development that offers anyone, anywhere, access" to its offerings. Hawai'i Pacific University was the first university in the world to partner with Coursera's Career Academy, states Leslie M. Blood, Professor of Management at Hawai'i Pacific University. Since the beginning of the partnership in August 2022, over 1600 students have taken over 19,000 lessons—data that is continually updated and viewable on the HPU Coursera page—so everyone involved can see in real time the impact and value of the partnership.

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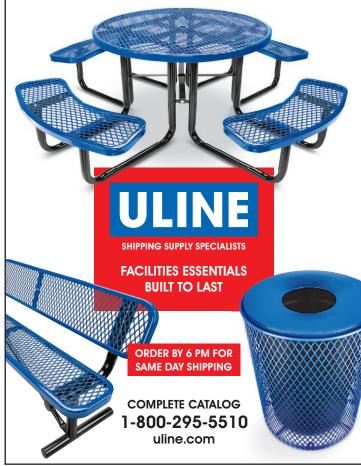


PHOTO COURTESY HAWAI'I PACIFIC UNIVERSITY

had to change from hiring practitioners to hiring people with doctoral degrees.

Rosenbaum argues strongly in support of institutions which have a practical focus. Many first-generation and minority students—among others—want to make sure they are building skills that will lead to employment. Rosenbaum admits that it can be controversial to state that some students may attend college for something other than the sake of learning. Additionally, he says, parents almost universally want to be sure their children will be employable upon graduation. Kauhane, from her vantage point in admissions, observes that Rosenbaum clearly understands the community's desires and their career needs. Having worked with other deans since beginning work at HPU in 2003, Kauhane was impressed with Rosenbaum's ideas and attitudes; she thought, "Wow! He gets it—what we're seeing."

One of the first decisions Rosenbaum needed to make when he became Dean was whether to continue pursuing AACSB accreditation or



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to suspend the process. Given the school's history and the budgetary realities, he decided to take the school back to its roots as a teaching college. As he states, "small schools serve niches."

He realized, however, that he needed a partner to help pivot the business college to a skills-based focus which would link classes to specific career pathways. As Rosenbaum observes, many students question the value of focusing solely on theory in college classes—even though that focus is what many faculty members prefer. When business students are limited to theory, they often wonder why they're in school, Rosenbaum notes; they're asking, "What is the return on this education?" Students at teaching-intensive institutions are demanding real skills.

Coursera's Career Academy

In thinking about all of these considerations, Rosenbaum decided to partner

with Coursera, an online learning platform offering courses from top universities and multi-national corporations. As the website states, "Coursera was founded ... in 2012 with a vision of providing life-transforming learning experiences to learners around the world. Today, Coursera is a global platform for online learning and career development that offers anyone, anywhere, access" to its offerings. Hawai'i Pacific University was the first university in the world to partner with Coursera's Career Academy, states Leslie M. Blood, Professor of Management at Hawai'i Pacific University. Since the beginning of the partnership in August 2022, over 1600 students have taken over 19,000 lessons—data that is continually updated and viewable on the HPU Coursera page—so everyone involved can see in real time the impact and value of the partnership.

As Rosenbaum points out, the corporations develop studio-grade quality courses,

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As Mark Rosenbaum, Dean of the College of Business and Professor of Marketing at Hawai'i Pacific University points out, when faculty members use Coursera micro credentials for student learning, then class time is freed up for case studies, field trips, and other high-impact practices—and the faculty no longer need to be the creators of knowledge; they can become coaches, mentors, and guides.







and students want that quality. When he looks at Coursera's Career Academy and compares it to what has traditionally been done in business education, he sees a definite disconnect. Companies such as Google, Sales Force, IBM, Meta, and Intuit—world class companies—are paying for world class content. Kauhane admires the way Rosenbaum has spearheaded the effort to develop a stronger focus for better preparing students for specific careers; he has been a "go-getter from the get-go," she remarks.

The career academy at Coursera offers distinct career pathways. Right now, Hawai'i Pacific students can choose among twenty-four pathways, and there

will be more, Rosenbaum says. Blood notes that students have access to every certificate while they're enrolled; time is the only limitation for how many they can complete.

As Rosenbaum points out, when faculty members use Coursera micro credentials for student learning, then class time is freed up for case studies, field trips, and other high-impact practices—and the faculty no longer need to be the creators of knowledge; they can become coaches, mentors, and guides. Rosenbaum argues that the flipped classroom should be the norm in business schools.

Rosenbaum offers an example of how a professor can tie theory to practice in a services marketing class. Coursera offers a certificate for UX Designers—a profession, he points out, that has a median beginning salary of \$117,700. A professor can give students the opportunity to begin this certificate during the course, linking the content of the course to a career in customer experience design. The certificate has seven courses; some professors may use an entire course as a textbook, and others may assign parts of courses, encouraging the students to continue. In this way, all of the readings, videos, quizzes, etc. are studio grade; all of the well-developed content is broken into chunks that are delivered in three-to-twenty-minute increments. The students can then choose to dip in and out, taking very small pieces at a time, or they can complete multiple pieces in a longer time period—they can choose to learn in the ways and moments they choose. Such combinations of course work, Rosenbaum says, clearly demonstrate a return on the student's investment in education.

Kauhane plays a part in guiding new MBA students. She directs a required one-credit course plotting each student's pathway dedicated to a specialization; specializations are sets of certificates, and each student will leave the program with at least two specializations. Additionally, Blood states, an alternative option for an internship is to enroll in a full certificate;

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this option is more flexible, since it can be completed in a summer term from any location.

Blood appreciates the opportunity to draw on Coursera's certificates to complement her course content. She notes that instructors can

use the certificates as a guide for teaching or a supplement to other course material. In her Fundamentals of International Business class, she requires the students to complete the certificate in IBM cybersecurity. She chose that certificate to complement her class, and an added benefit is that the certificate is currently "hot"-employers are looking for people who have this certificate and will pay starting salaries of \$85,000 for this in-demand job.

Blood also appreciates that these are real world certificates. She uses the social media marketing certificate from Meta in her capstone class because almost every job now ties in some way to social media marketing. Being certified by known companies gives students an edge. Plus, she points out, the industry leaders are the experts in the fields that the students are learning in the Career Academy.

Rosenbaum states that the partnership with Coursera's Career Academy has really turned the business school around, and they're "slowly making inroads with the undergrads," as well. Kauhane reports that, beginning this fall, Coursera will be available to all HPU students, to be used as a career development resource that will be covered by a small part of the student fees. She says that it's exciting to be able to open Coursera up to everyone. Blood notes that when they told the students about the opportunity to complete Coursera certificates, they really jumped on it, since the opportunity would cost a lot for students to pay for on their own.

Kauhane states that Rosenbaum gladly engages with all members of the campus community-students, faculty, and staffand is completely open for ideas and innovative collaborations, such as the one with Coursera's Career Academy. She encourages other administrators of private higher education to embrace innovation to reach the current student generation. Blood says that, as a dean, Rosenbaum is very hands-on and student focused, trying to prioritize tools, knowledge, and resources. He is "beyond dedicated" to his role, and he tries new things for good reasons, guided by this question—one that is useful for all small liberal arts college and universities: "What can we do to get our students great jobs upon graduation—jobs that pay well and that they love?"



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Top Questions to Ask When Investing in Wireless Locking and Access Control

BY JEFF CAHILL

Much has been made over the last decade about wireless locks and the effort by lock manufacturers to bring access control to the countless number of interior doors in a facility. However, many options available today offer wireless in name only; many costly wires are still required to power and connect wireless access points to make a lock wireless at the door.

Most facilities managers would agree that brass key control issues cause poor security and expensive rekeys due to lost, stolen, or duplicated keys, and these issues are more prevalent than ever. There are now thousands of 3D key printing kiosks in most hardware retail chains so that almost any key can be duplicated without authorization. Fortunately, a number of access control locking products are appearing on the market to combat the weaknesses of these traditional lock and key systems. The challenge for security managers is how to choose from a wide range of products and features that may seem confusing to security decision-makers when choosing a smart lock or wireless access system.

The most common dilemma and mistake in the decision-making process is deciding access control functionality—controlling user's time of access, getting audit trails, and immediate

"e-rekey"—needed on interior doors, then keeping the existing key system because extending perimeter door access control systems to interior doors is cost prohibitive. Now, some cost-effective options may integrate with the expensive perimeter door system. Currently, virtually all users carry three credentials: an access card, a key, and a phone. Organizations which decide to do nothing will still have poor, outdated key control, and users will still carry three credentials. Organizations which choose affordable access control/smart locking systems can decrease the number of needed credentials and eliminate poor key control without affecting the perimeter access control systems.

The following questions should serve as a guideline for asking the right questions when investigating potential wireless locking solutions:

Is the wireless lock ANSI Grade 1 rated?

ANSI Grade 1 is the standard for any commercial, industrial, or institutional facility in the United States today. It makes no sense to invest in a product that features access control functionality, then install a low-cost smart lock that is easily defeated by simple picking or other vulnerabilities. Decision-makers should insist on Grade 1 protection as a starting point when developing the requirements for a new wireless system. Important features to consider related to this question of quality are:

- High security keyway for emergency key over-ride
- High security cylinders or pick-resistant pin segments in a 6- or 7-pin cylinder
- A clutch mechanism lever or other attack-resistant lever handle.

Will the wireless lock report tampering and key override?

Just like on-line electronic access control solutions, wireless locks are only as secure as the brass key override included with them. Understanding whether a wireless lock has a method of reporting tampering such as entrance by a mechanical key, picking, etc., should be an important factor in any purchasing decision. For life safety reasons and protection against electronic failure, key override is an important feature. However, keys should not be used or distributed except in an emergency. Otherwise, security is no greater than a standard pin-tumbler lock system and compromises the security of any wireless lock. Decision-makers should make sure that the system can provide an audit trail by detecting each time the lock/door was accessed.

How secure is the credential?

Many card technologies that were available just a few years ago can easily be duplicated today. Decision-makers should ensure that the wireless lock system uses a credential technology that has not been hacked. This consideration may be the most important and yet least considered part of this list. Virtually all credentials can be hacked with a \$30 equipment purchased on-line. Better choices

are DESfire EV2, 3 or SEOS® credential technologies with multiple layers of encryption instead of easily hacked legacy credentials such as Mifare®, Mifare Classic®, HID standard prox, or iCLASS®.

How many communication protocols does the wireless lock use?

Most wireless locks can communicate via Bluetooth, RFID, Wi-Fi, or some other wireless protocol. Decision-makers should choose a system that only utilizes Bluetooth as a mobile credential. Mobile phones are typically a personal device of an employee who may deny use of their phone as a corporate credential, so secure RFID credentials—cards, fobs, etc.—should be provided as an option for such employees. Adding biometric access or PIN codes for dual authentication may be an added-cost option for consideration in higher security areas. For security reasons, PIN codes should be avoided as a single authorization device.

How is information retrieved from the wireless lock?

Understanding how to update wireless locks with new information and retrieve activity logs and audit trail information is a critical question to answer when considering a wireless lock deployment. Many wireless locks today require a heavy infrastructure investment in order to interact with them; some claim to be able to leverage the existing Wi-Fi network in a facility. The key here is understanding how often users can communicate and what is required in order to capture data that resides in the lock. Decision-makers should always ask: does data capture require traveling to the lock and, if so, will this "sneaker-net" option meet campus requirements? In addition, understanding if there are other options to communicate to the locks on demand—Mobile Credentials, Wi-Fi, Bluetooth Low Energy (BLE) bridges, Data-on-Card, etc.—and the cost of this added connectivity will be important in any final decision around a wireless lock investment.

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pupnmaq.com JUNE 2023 17



What is the future capability of the wireless lock?

When technology advances so quickly, future proofing any investment made in wireless locks may prove challenging. So, understanding if there is any current or future capability of turning the off-line or wireless locks into on-line doors for real-time communication will be critically important. Asking if online doors are required and if they are compatible with the wireless locking system are important questions to get answered as part of the decision-making process.

Will the wireless lock work on all major door applications?

Every facility is unique, but most door openings and locking systems in any facility fall into four major categories: cylindrical, mortise, panic, and storefront. Any wireless lock solution being considered should have an effective and thorough way of addressing each of these types of applications. This capability is not always a given, so decision-makers

should research these applications, especially when retrofitting existing openings to ensure a successful implementation. Any required auxiliary locks, such as gates, padlocks, cabinets locks, etc., should also be considered.

Is the wireless lock system scalable?

Many wireless locking systems are limited as to the number of locks available, so the selected system should be scalable to campus needs. Decision-makers need to understand how the management software works and how easily doors and users can be added, changed, or deleted. Decision-makers should ask what fees may or may not be associated with adding additional locks and users over time before making a decision that has future ramifications.

How does the wireless lock consume power?

One of the limitations of a wireless locking system is power consumption. Wireless systems typically require battery-operated locks, and systems vary wildly in how power is consumed, affecting battery life and the frequency at which batteries need to be changed. Understanding cycle testing results and how often the batteries will need to be changed is important in decision making because this schedule can translate to added labor costs. For instance, Wi-Fi can talk to more devices in a system but typically uses up to twenty times the power requirements in comparison to BLE, so knowing the power draw for the number of times users need to connect or communicate to the lock is important.

What are the recurring charges or costs?

When desiring and comparing access control functionality with standard locks, price is usually the most important factor because almost all access control systems have some type of recurring cost connected to their features. Obviously, any such costs drive the cost comparison significantly higher when compared to a standard mechanical locking system. So, one of the most important questions is: What is the cost, and are there any ongoing or recurring costs associated with systems that are being compared?

While personal computers of all types have quickly and thoroughly replaced the typewriter over the past few decades, the locking industry is still using pin-tumbler lock technology invented by Linus Yale in 1861 as the industry standard. Each day, increased school shootings, terrorism, and threats demand a change toward increased security and the access control features wireless locks can provide for interior and perimeter doors. Wireless lock technology is ready to challenge the status quo as the next generation of security for all doors, not just the perimeter doors. Campus administrators need to be prepared for the coming revolution.



ABOUT THE AUTHOR: Jeff Cahill has spent over forty years in the locking hardware and access control industries,

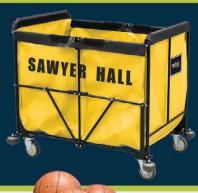
including twenty years with Best Locking Systems, was one of the founders of XceedID Corporation and is the founder and majority owner of Proxess, LLC, a wireless locking/access control platform.

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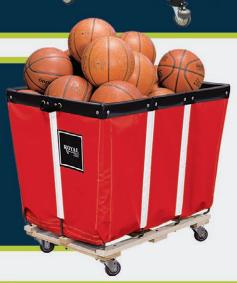








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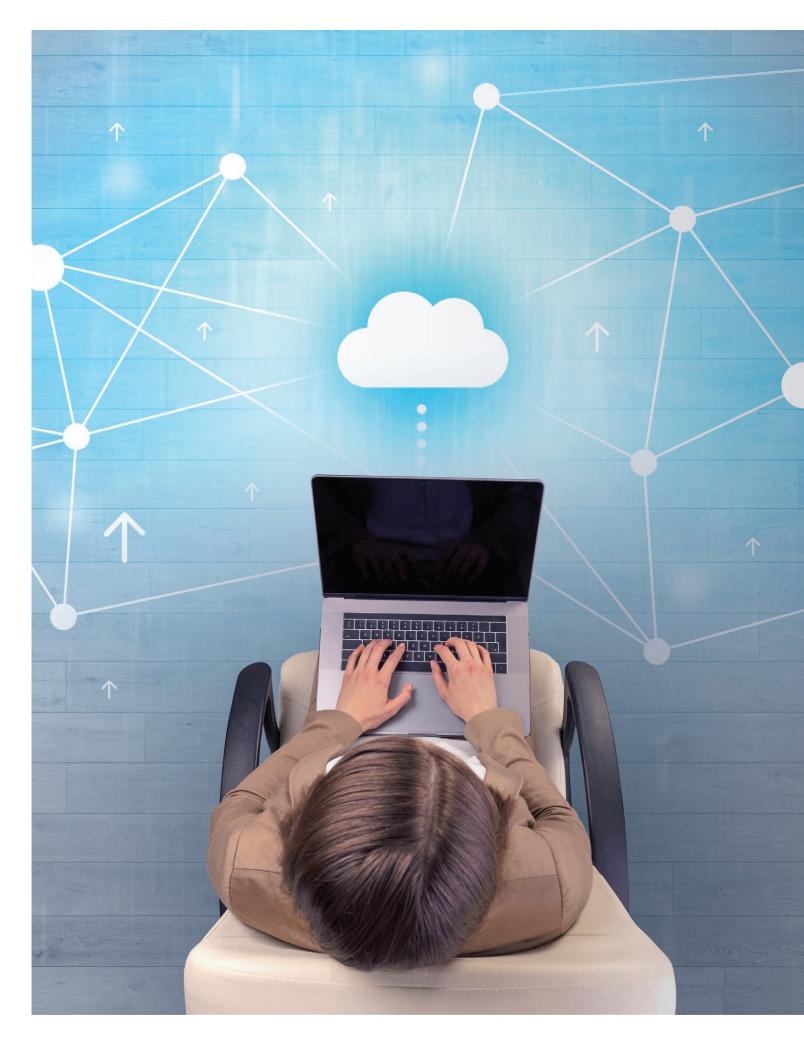
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Streamlining Communication Platforms

AND THE GROWTH OF HIGHER EDUCATION

BY DAVID VINSON, PHD

It is hardly a secret that higher education enrollment is in a state of decline, and of course the pandemic only added fuel to the fire. Overall enrollment fell 4.1% between May 2021 and May 2022, and the National Student Clearinghouse Research Center notes that the total undergraduate student body has shrunk by 9.4 percent since the pandemic began. The slide in enrollment since 2018 is the steepest on record, according to the U.S. Bureau of Labor Statistics. But there is and continues to be an unseen benefit, one signaling a recalibration that has transformed how we approach higher education. The pandemic and the innumerable challenges it presented has made us better. We have responded with resilience and ingenuity, and we have embraced the great responsibility of keeping our students healthy and engaged.

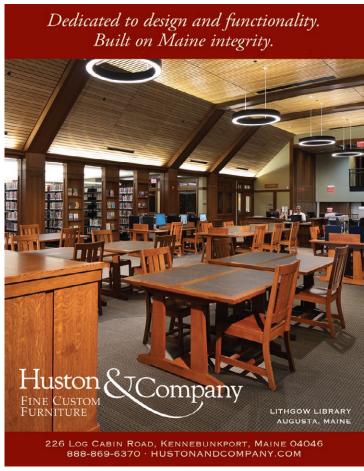
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he current landscape is that all institutions of higher education are competing for fewer students, and those who have enjoyed a competitive edge have simplified their admissions and enrollment processes. Many universities quickly adopted cloud-based solutions in 2020 to support remote learning. What we have since learned is that prospective students now expect the same modern and accessible communication channels they find elsewhere. In fact, as we have all acclimated to more flexible modes of learning, more than half of students and faculty now say they prefer a hybrid learning model that combines in-person and online education. Cloud-based technologies are transforming higher education models. They represent a viable strategy for not only putting a gradual halt to enrollment trends but of growing our campuses and facilitating more inclusive and generative learning experiences.

Combating Enrollment Decline with Cloud-Based Solutions

Many universities still operate with legacy siloed systems and therefore lack updated communication platforms. Research shows that in select cases, students have had to interact with more than seventeen different technologies during the enrollment process—one for applications, another for financial aid, another for transcripts, and so on. Imagine their frustration and how this experience alone could deter them from enrollment. Thankfully, cloud applications help to tie disparate systems together, making communication simpler and more seamless. The most impactful digital enrollment services offer a streamlined user experience across multiple channels, from the web to text and mobile apps. These choices enhance the relationship between campus and student, supporting back-office efficiencies that eliminate manual processing for admissions personnel.

Cloud platforms in online programs are now a major asset in steadying the overall decline of enrollment numbers. By using instant messages, desktop chat, and file-sharing, universities are reworking traditional education models. Moreover, just by offering a video meeting of a session, class sizes can increase with ease; indeed, video-based sessions provide more education to more students who otherwise cannot share the space of the classroom. In 2021, nearly 60% of all postsecondary degree seekers took at least some online classes. Nearly 30% studied exclusively online. The number of students accessing online courses now exceeds pre-pandemic levels, and the United States is home to the highest number of remote learners on a global scale. Cloud-based communications providers help universities set up multichannel contact centers to engage with students through voice, video, chat, and social media. Embedded analytics also enables institutions to track communications and measure the effectiveness of channels and





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messaging. Offering multilingual web chat options, text alerts, and other multichannel communications can further strengthen the student recruitment process.

Carolina University (CU), located in Winston-Salem, North Carolina, recently set enrollment records after implementing an advanced communications technology. In a sense, the university found itself trapped in 20th-century communications technology. One task in streamlining communication was to update the phone system. CU adopted a cloud-native platform with integrated voice, video meetings, and chat capabilities, and the administrative office began communicating with students using text chat capabilities—all the while still keeping cell numbers private. The Admissions office saved \$50,000 the first year, enrolled most students in remote learning, and added e-sports to the athletic program. CU likewise implemented cloud technologies that made it easier for employees to work from home and communicate more

efficiently with students by text. A cloud-based communications platform can even help in recruiting international students. While international student enrollment declined during the pandemic, it is now rising again and remains an attractive market for U.S. higher education institutions.

Protecting Personal Privacy with Cloud-First Approaches

In a report by the 2023 Higher Education Trend Watch, which focuses on emergent macro trends in higher education, the #1 trending concern for IT departments is the need for increased data security and protection against threats to personal privacy. To address this issue, we are witnessing a shift in culture at the institutional level. More than ever, universities are conducting strategic planning as well as implementing new initiatives and policies to address cybersecurity challenges. These efforts include campaigns to increase cybersecurity awareness, investing in cyber

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insurance, and ramping up efforts to detect and prevent threats with regular risk assessments, phishing tests, third-party consulting and monitoring, and audits. Just as important as the cultural component of responding to data security threats, we are seeing major shifts in technology. Universities are expanding, upgrading, and adopting new technologies and security measures such as multi-factor authentication, password tools, threat detection, monitoring, ransomware protection software, and endpoint and Wi-Fi security.

Cloud-based solutions empower universities to eliminate the need for costly on-premises services. Savings can then be applied to cyber security improvements, disaster recovery, and development of testing capabilities. Integrating on-premises firewalls with cloud computing keeps processes running smoothly and accelerates disaster recovery processes. Having smart information security and a sound strategy for disaster recovery goes hand in hand with creating efficiencies for higher education institutions. A cloud-based approach helps

"Designing

universities maintain high security standards and compliance while also allowing them to divert resources to innovation.

Cloud-Based Technologies and Emergency Notifications

Mass notification systems are an integral part of how higher education institutions communicate with students, faculty, and staff. Threats to campus safety—for instance, severe weather or other adverse events-must be communicated in a swift and reliable manner. Custom branded campus safety apps can deliver essential information that keeps everyone informed and ready to take needed actions. The technology market offers a variety of options for campus communication software that facilitates critical information sharing across multiple channels, such as SMS, voice, text, email, digital signage, website, social media, desktop alerts, sirens, and more. Safety apps also build relationships and student communication by empowering users to interact with campus officials to share or report timely information in a manner with which they feel most comfortable, including anonymous tip texting. Such streamlined communication extends not only to students but to contractors, parents, and other on-campus guests. Universities need only to implement an opt-in feature by text that integrates with the institution's current mass notification system.

Further Benefits of Cloud-Based Solutions

Cloud-based solutions foster greater collaboration campus-wide, supporting heavy network traffic and simultaneous workflows. They likewise reduce the need to leverage disparate communication chains, including in-person and email. During peak administrative cycles, the cloud offers peace of mind that processes will not be hindered by increased network traffic, largely correlated with key institutional workflows such as scheduling or registration. They are inherently flexible in function and can support ebbs and flows in usage demands.





ABOUT THE AUTHOR: Dr. David Vinson has a PhD in English with specializations in transatlantic literature and cultural studies.

He is a committed scholar, teacher, and dad. If you ever meet David, avoid the subject of soccer. His fandom borders on the truly obnoxious.

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Inspecting Fire Sprinkler Systems

mong the requirements needed to keep commercial fire sprinklers working and code compliant are the routine inspections, which can seem complex. Most of the inspection, testing, and maintenance (ITM) of sprinkler systems requires a qualified life safety professional, but some of the work can be done by in-house facility personnel.



NFPA 25, the standard for the inspection, testing, and maintenance of water-based fire protection systems, is the primary standard for most facilities; this standard assigns specific responsibilities to the property owner or their designated representative. The property owner is responsible for the integrity of the fire sprinkler system even if ITM is being provided by an outside contractor.

Property owners using independent contractors for ITM services can still utilize onsite personnel to perform basic inspection requirements and maintenance to proactively manage sprinkler systems. The responsibilities of both the ITM contractor and the property owner must be clearly defined in writing in order to eliminate any possible confusion. Furthermore, property owners are responsible for ensuring their contractor's reporting forms meet the requirements of their local authority having jurisdiction (AHJ). Even if a property owner or facility manager defers all inspections to a contractor, the owner must be able to identify issues and proactively address them before they become a system impairment or flood a facility.

Visual Inspections

NFPA 25 requires an annual visual inspection "from the floor level" of sprinkler heads,

the pipes, and fittings to which they are attached. Visual inspection of sprinklers is meant to determine if the system will operate correctly in the event of a fire. The inspector must understand the local requirements for reporting, tagging, and any local exception or requirements to NFPA 25. If any part of the sprinkler system shows signs of deficiencies, property owners are responsible for making repairs.

The following list covers things to look for during a visual inspection, along with recommendations on how to fix and prevent future impairments.

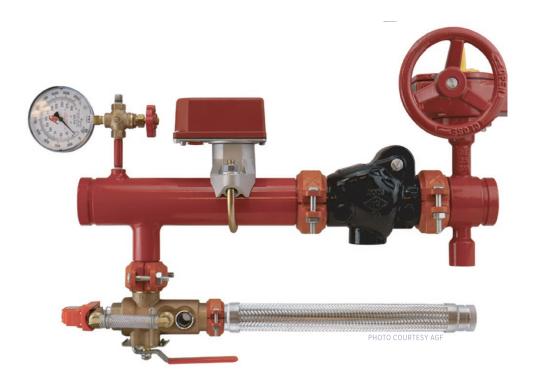
Damage or Leakage

Damage to the sprinkler head, pipe, and fittings is most obvious when there is an active leak. Visual inspections do not require removal of cover plates or inspection of sprinklers in concealed spaces, but signs of water damage are an obvious indication of an issue which requires further investigation. Pipe couplings should also be inspected for signs of damage, leaking, and corrosion.

Paint, caulking, and spray insulation are common problems that are visible on a sprinkler head or cover plate. Sprinkler heads and concealed cover plates may only be painted by the manufacturer and must be deemed deficient if painted. It is important to view a head from multiple angles to get an adequate inspection. Furthermore, cover plates cannot be glued, caulked, or epoxied as these products would prevent them from functioning correctly in the event of a fire.

Many sprinklers are manufactured using a clear glass bulb with a colored fluid and bubble designed to break at specific temperatures. The liquid is most often red in color,

continued on next page



but it could be orange, yellow, green, blue, or purple, depending on the sprinkler's temperature rating. A system inspection should include a close look at these sprinklers to confirm that the fluid and bubble are not missing. Without this fluid and bubble, the glass will not break when exposed to high temperature, resulting in a sprinkler that may not activate during a fire. Other components that can be visually inspected from the floor might include hangers, braces, and supports. Loose, bent, or damaged system bracing needs to be replaced.

Corrosion

Corrosion occurs when water, oxygen, and ferrous metal react. Steel fire sprinkler pipe filled with a mixture of water and trapped air provides the perfect environment for corrosion. Corrosion can also occur on the sprinkler head or deflector; such corrosion would impact the water distribution patterns and is considered a deficiency requiring replacement. Sprinklers that are loaded with dust should be carefully cleaned with a vacuum or compressed air. Facility managers should work with their service providers to determine who is responsible for cleaning heads.

Internal corrosion is more difficult to spot during a floor level inspection. Evidence of pipe corrosion would be visible corrosion at pipe joints and pin-hole leaks. Corrosion monitors with visual indicators are an easier gauge of what is going on inside of the system piping and can alert facilities managers of internal corrosion before leaking becomes an issue.

One simple method for preventing internal pipe corrosion on wet sprinkler systems is installing air vents. Air vents are now required on new systems but can also be retrofitted onto existing systems. By removing trapped air, internal pipes no longer have the oxygen needed for the metal to react and create corrosion. An excellent time to retrofit air vents into a system to extend the life of the pipe is when the ITM contractor performs the required five-year internal inspection.

Orientation

A bit more technical and sometime hard to observe from the ground, sprinkler head orientation is important. Sprinkler heads may look similar, but they are manufactured for specific applications and only function correctly when installed correctly. Facility personnel might need to rely on their ITM Contractors for this inspection and will need them to fix any sprinklers that are incorrectly installed.

Clearances

Visual inspection for clearances is less about the sprinkler and more about the items stored around them. Space can be limited, and storage space can become overcrowded. When items are stacked, the general rule is that there must be at least 18" of clearance around a sprinkler head to prevent obstruction of the water discharge. Other items to look for are temporary obstructions like banners or decorations and permanent structures that were installed after the sprinkler system, such as fans and lighting.

Repair Inventory

When a sprinkler system is installed, a spare sprinkler cabinet is a requirement, and it should have a small supply of replacement sprinklers matching those installed in the

system, a wrench for each type of sprinkler, and a list of spare sprinklers. This cabinet should also be inspected to confirm nothing is missing.

Freeze Protection

Although it is not a requirement of the annual visual inspection, property owners are still responsible for making sure their sprinkler systems are in a heated space. When an area cannot be heated, like a parking garage, a dry system will need to be installed. A dry system contains pressurized air; when a sprinkler is activated, the internal air pressure drops, tripping the dry valve open and allowing water to be released into the system to fight a fire. Although they are called dry systems, they still require draining. Auxiliary drains, also referred to as low-point drains or drum drips, collect condensation that forms in the pipes. During colder months, if auxiliary drains are

improperly maintained, they can easily freeze and break, causing major flooding. The cost to repair and reset the fire sprinkler system itself is negligible compared to the cost of water damage mitigation, potential slip and fall liability, possible lost inventory, tenant interruption, and increased insurance premiums.

To proactively manage auxiliary drains, facilities personnel must not only inspect them but also drain them frequently. There are several options to help with this task. Heat tracing is one solution, but it can be expensive to install and operate and difficult to maintain. Heated auxiliary drain cabinets, with manually operated drain valves or automatic drain valves, are another option that will prevent freezing. Less expensive options include devices designed to prevent flooding. These devices can be installed into the piping system above an auxiliary drain, and they will stop the flow of water if a drain breaks.

This list of required attention and maintenance might seem overwhelming, but it is essential for the safety of building occupants that property owners ensure that their fire sprinkler systems are functioning correctly. A comprehensive and well documented inspection, testing and maintenance plan that identifies and clearly defines the responsibilities of the property owner, the facility's internal staff, and contracted ITM life safety professionals is a critical first step to avoid confusion and manage those responsibilities. Proactively managing fire sprinkler systems will save lives, will protect property, will extend system life, and will ultimately save money.

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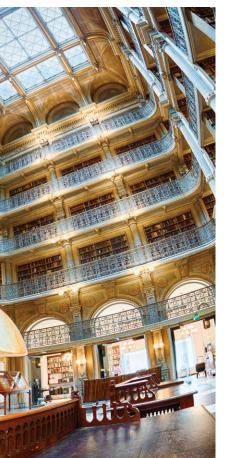
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Showcase of Excellence 2023

Our readers requested from us a special annual feature highlighting providers who offer quality products and services for private colleges and universities. This "Showcase of Excellence," which appears each year in our June issue, is filled with ads that present both case studies and product showcases from service and product providers exclusive to the higher education market.

These pages exhibit more in-depth information on these quality providers and their products, along with demonstrative case studies that will help administrators in higher education fulfill their mission of providing excellent experiences throughout their facilities. And just as readers may face the challenge of not having enough time to communicate every single aspect of their higher learning meccas with students and communities—we were similarly limited by available space in this issue and could not include every single one of the companies that we know can help college and university decision-makers. Our hope, however, is that readers will enjoy the information that space allows us to include, and we know this information will help higher ed administrators continue to be successful in providing quality facilities and experiences to the many lives their colleges and universities touch.

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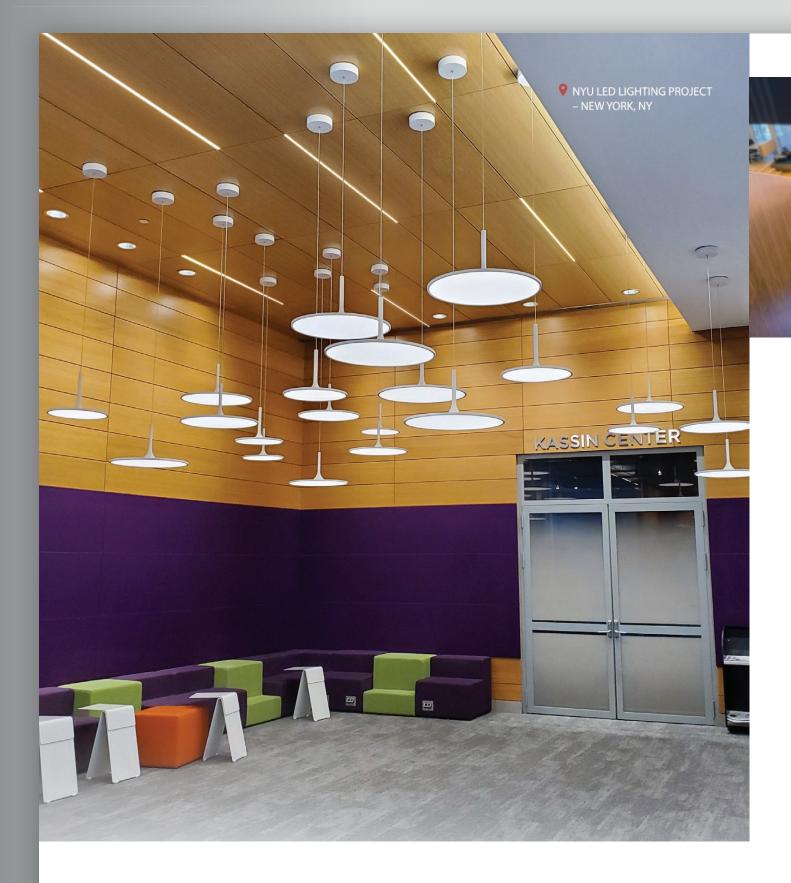
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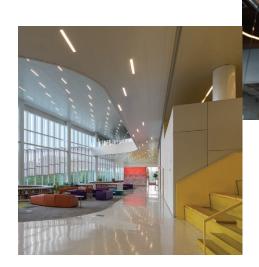
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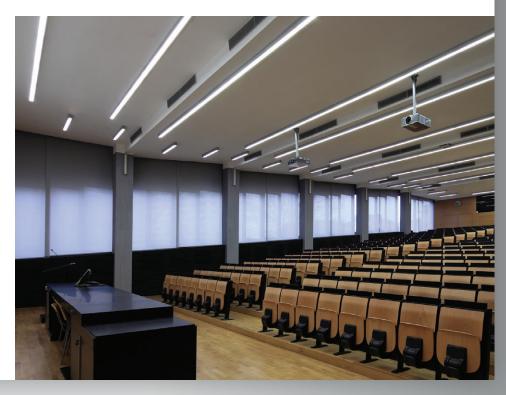
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According to Sean Farrell, senior project manager at Layton Construction, establishing collaborative relationships is key to successful construction projects. One of the best examples of this maxim is a multi-phase university project for which Layton Construction is serving as construction manager. Layton, part of the STO Building Group, is a nationally-ranked commercial contractor with ten offices around the United States. The firm specializes in healthcare, industrial, warehousing, and higher education projects. As construction manager, Layton hires the sub-contractors and manages and oversees the project as part of a team.



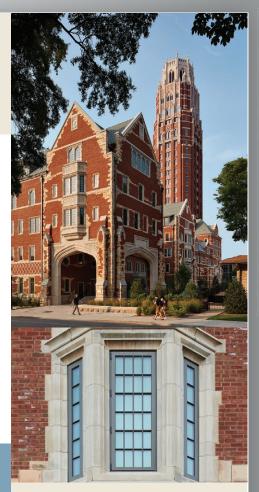
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Hope's Brian Whalen, Vice President of Sales, acknowledges that the project was a real test of Hope's capabilities. He is especially proud that they Hope's was able to expedite the schedule even in the face of design changes and in the midst of the Covid-19 pandemic. The shop drawing approval process – including preparation of blueprints of windows and doors with all setting conditions, sizes, customized designs, and required testing – took longer than normal. Changes were made along the way that might have pushed back the delivery schedules for some, but Hope's made adjustments during the production process to deliver all materials on time. Whalen gave a nod to Joey Riggan and the team at Alexander Metals, the frame and glass installer team, saying the overall project went extremely smoothly once the frames were on site.

Says Whalen, "It was a fantastic collaboration among all the parties. Hope's worked closely as the manufacturer to fulfi I the architect's design vision, and then the installer worked closely with us to make sure everything was installed executed properly."

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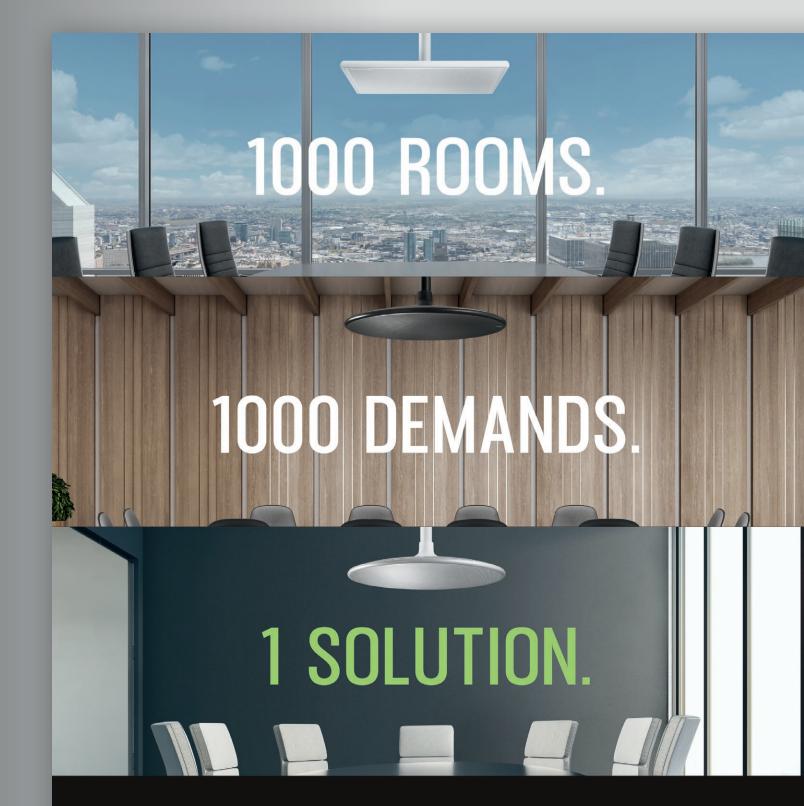


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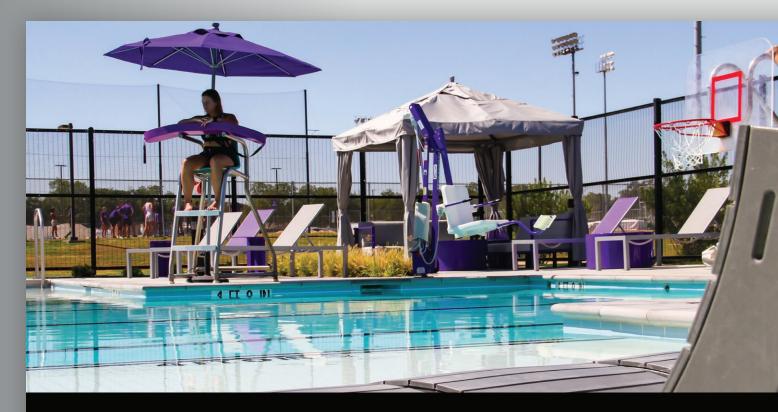




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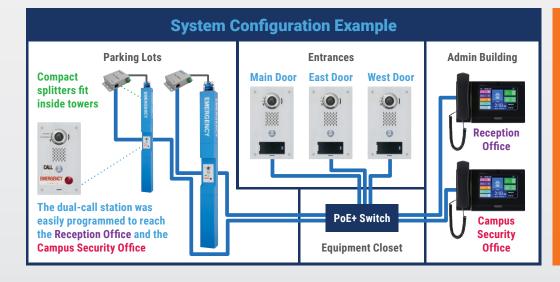
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VANQUISH

COMMERCIAL STAND-ON ZTR

The new VANQUISH™ model brings stand-on mowing to the Evolution Series. Available with a 52" or 60" cut (side/rear discharge), the VANQUISH runs for up to 7 hours continuously at speeds of up to 11.5 mph. It features the same patented ZTR technologies as our riders. The VANQUISH is quiet, low maintenance, and has zero emissions.





FURY

COMPACT COMMERCIAL STAND-ON ZTR

The FURY is Mean Green's compact stand-on mower, designed to allow access to gated areas that most other commercial mowers are too wide to enter. With a mowing width of either 32" or 36", the FURY joins Mean Green's full-sized stand-on, the VANQUISH (52" or 60") to complete the line of commercial, electric-powered, stand-on ZTR mowers that can run all day on a single charge. The FURY is available with either side-discharge or a rear-discharge mulching deck.





NEMESIS

PERFORMANCE ZTR

The NEMESIS brings commercial style mowing to those who don't require all-day battery power. With a battery life of up to 2.25 hours (enough to mow up to 5 acres), speed of up to 8 mph, 15-degree slope capability, and power equivalent to a 28 HP gas mower, the NEMESIS checks every box for the serious user.









Game Ready

All-new for 2021, List Industries Inc.® is introducing its New Recruiter2™ Wood Sport Locker Quick-Ship Design lockers with modern contour edges and many included features.

Available in 24" Wide x 24" Depth x 84" Height and 30" Wide x 24" Depth x 84" Height, they can be ready to install in as little as two weeks.

Reinforce your commitment to your players and imagine the powerful impact a modern, luxurious and efficient locker room will have on your ability to recruit the best players to your program. List Industries has re-engineered the New Recruiter2™ Wood Sport Locker with sleek Quick-Ship Design. Their lockers bring an upscale and luxurious design to your locker room with a very reasonable life-cycle cost. They use the finest furniture-grade plywood to keep them looking like new year-in and year-out. Each locker is handcrafted by expert craftsmen using state-of-the-art equipment. The Recruiter2 locker is shipped fully assembled and ready to install upon delivery. Custom accessories are available to add to the player's enjoyment of their locker. The company's experts will help you throughout the entire process — from initial design to project completion.

List Industries has earned its slogan as America's Most Complete Locker Line by offering the largest selection of locker styles, materials, sizes, colors and functionality all while maintaining high standards of quality, customer service, packaging, and on-time delivery. They offer metal, wood, phenolic and plastic lockers; designed to serve the locker needs of any facility from health and sports clubs to schools and universities to professional sports arenas and stadiums.

For more information on List Industries Inc.® visit listindustries.com or call 800-776-1342.





We're Still Listening.

Water professionals know that swimmers demand clear and clean water. That's why we continue to work hard to make your job easier. Make chlorination easy with the **ACF Series** Calcium Hypochlorite Feeders.

Clarify with Vantage Poly-A Clarifying Tablets. This unique and powerful tablet water clarifier is not just to clear up cloudy water after a long weekend. As a maintenance product, it works with your filtration system to remove organic and inorganic compounds to prevent dull and cloudy water.

SANITIZE with the ACF Series

Calcium Hypochlorite Tablet Feeders

- : Safer than liquid systems
- :: Runs "Clean" Less Maintenance!
- :: Simple, Efficient, and Durable
- :: Systems available for ANY size pool
- :: NSF/ANSI Standard 50 Certified

CLARIFY with the **VPF-20**

Poly-A Tablet Feeder

- Unique tablet clarifier
- : Easier than liquid systems
- :: Removes organic and inorganic compounds
- :: Increases filter effectiveness
- Proven cryptosporidium removal



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Introducing the

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Calcium Hypochlorite **Tablet Feeders**

- Unmatched water quality
- Safer than liquid systems
- Runs "Clean" Less Maintenance!
- Simple, Efficient, and Durable
- Systems available for ANY size pool
- NSF/ANSI Standard 50 Certified
- Uses VANTAGE Calcium Hypochlorite Tablets
- Majority of Parts are Interchangeable

Thanks in no small part to your input, our introductory ACF-60 model feeder received excellent reviews from the field. So good, in fact, that facility managers and operators, builders, and designers requested the same simplicity of design, reliability and ease of operation in both smaller and larger capacity feeders. Again we listened, and the result is the ACF-18 for commercial systems under 50,000 gallons, and the ACF-250 for systems up to 1,000,000 gallons of water. All three Vantage feeders are NSF/ANSI Standard 50 certified.

A complete line of chemicals, including our unique Poly-A Tablets is available.

ANTAGE We're Still Listening.

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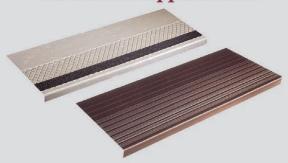
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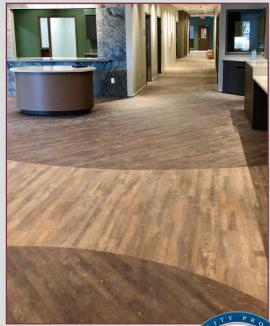
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Since 1945, Musson Rubber has been a pioneer and leader in the development, manufacture and distribution of safety stair coverings and flooring materials. Musson Rubber specializes in stair coverings and entrance matting for commercial, institutional and industrial use. Our website contains the most complete and comprehensive line of top quality rubber and vinyl stair coverings and entrance mats for use in public buildings. We have been involved in general production, maintenance, MRO applications, and we have been working with our customers and suppliers throughout the region for over 70 years.

Musson Rubber is your source when you need reputable products from top suppliers and trusted service.

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- Excellent for commercial, industrial, and institutional use
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- Matching cove risers are also available.

RUBBER SPORT FLOOR

- Durable spike resistant flooring
- Made of recycled rubber combined with color flecks of new rubber
- Available in roll goods, blue down, or interlocking tiles in a variety of colors

RECYCLED ENTRANCE MATTING

- Made of recycled PVC plastic
- Brushes off sand, dirt, and slush from shoes and carts
- Open grid drains away water and debris
- Snap together tiles are easy to install and replace
- Use in recessed areas or surface with beveled edges

LVT TILE WITH 40 MIL WEAR LAYER

The extra-thick helps to combine the beauty and feel of antique wood with the durability required for high-traffic applications. These planks are easy to maintain; there are no waxes, sealers, or other finishes required which reduces labor and chemical costs. Available in 7 seasoned wood patterns.







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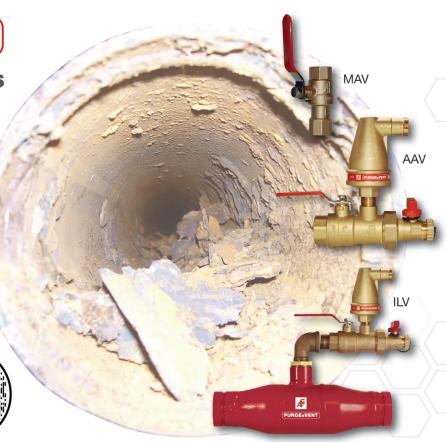
VENT TO PREVENT CORROSION

PURGENVENT

Air Venting Valves

NFPA 13 requires the addition of an air vent on each wet pipe fire sprinkler system that utilizes metallic pipe to help mitigate internal pipe corrosion. PURGENVENT valves come in a variety of styles. The 7910MAV is a manual air vent that has the smallest footprint on the market. The M7900AAV features an 7900V automatic air vent that releases excess air while the system is in operation. It also includes an isolation valve and purge valve. The purge valve helps air exit the system faster when filling, and it can be used as a vacuum break when draining the system. The vacuum break helps the system drain faster and protects gaskets from being dislodged on other system

components when draining. The M7930ECA includes a pipe cap for easy installation, and the M7950ILV features an air separation chamber that installs into the main branch line for applications with difficult to reach system high-points.



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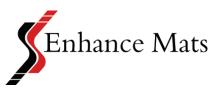
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Enhance Mats is an industry leader in LOGO SPORTS SURFACE PROTECTION for athletic facilities across the US and Canada. Our specialty of custom logo mats offers schools the ability to showcase their Team Spirit with mats for entrances, locker rooms, stadiums and on deck circles. As the leading distributor of Facility Armor products, we now offer innovative solutions for protecting indoor wooden gym floors from damage.

Facility Armor's **COURT ARMOR ROLL MAX**, a new 8-foot-wide gym floor protection product, was recently installed by Central High School in Carrollton, Georgia, whose new floor would be used not just for basketball and volleyball, but for Jr ROTC exercises and school dances. The system can be deployed by two people in under 40 minutes. By pairing this system with the hook and loop tape and the ReWind automatic winding wand for storage, headaches are eliminated.

TUNNEL ARMOR is a new gym floor protection product that is easy to store, clean and deploy. It is meant to counteract the potential damage that occurs when cold weather strikes and baseball teams head indoors for batting practice. The product is made of 100% recycled topcloth with an energy-absorbing padded backing. It is available in 6-ft wide rolls that can be cut to any desired length. Two rolls side by side protect a standard tunnel. The hitting zone, made of synthetic turf and the same great backing, can also be included. The topcloth is antimicrobial protected and easy to clean.



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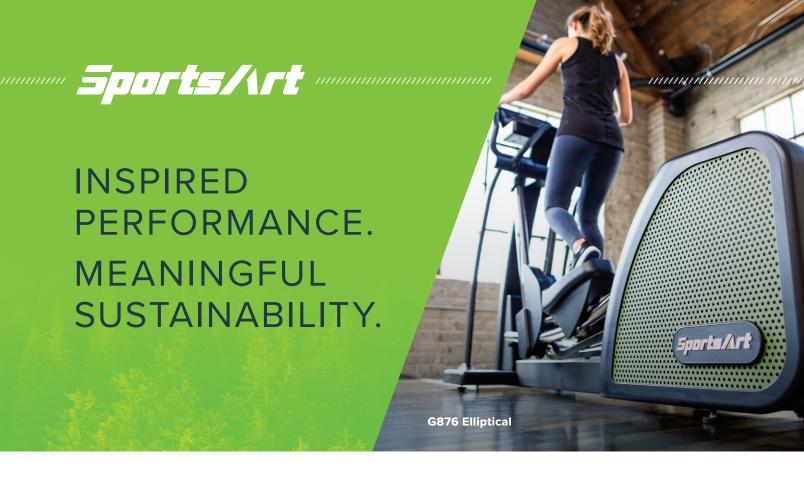






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