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Reshaping Security

7 Ways Cloud-Based Access Control
Can Tackle Security Challenges in Educational Environments

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Executive Summary

In the complex landscape of today's educational environment, where prioritizing the safety of students, faculty, and assets is crucial, traditional security measures are increasingly proving to be insufficient. Emerging technologies, such as cloud-based access control systems, offer a dynamic and flexible solution to tackle the myriad security challenges faced by educational institutions. By transitioning from traditional, physical key systems to a more advanced, cloud-based access control solution, educational facilities can enjoy enhanced security, improved scalability, real-time access management, and significant cost savings. Choosing the right access control solution can transform security protocols in educational settings and provide a safer, more efficient environment conducive to learning and growth.

Introduction

The importance of robust and responsive access control systems in a school environment cannot be overstated. Safeguarding the well-being of students, faculty, administrators, and the broader community is paramount. Stakeholders in these educational settings necessitate comprehensive solutions that not only mitigate evolving threats but also harmonize effectively with current infrastructures. The transition from traditional

locks to sophisticated, cloud-based platforms signifies a recognition of the intricate and ever-changing challenges confronting these institutions, highlighting a proactive approach to security and safety measures.

Let's explore seven key security challenges faced by school districts and uncover how a cloud-based solution provides a holistic approach to security.

1.   Protecting Against Cybersecurity Threats

"Just as we expect everyone in a school system to plan and prepare for physical risks, we must now also ensure everyone helps plan and prepare for digital risks in our schools and classrooms."

Miguel Cardona, U.S. Secretary of Education

Cybersecurity threats pose a critical challenge for educational institutions. The interconnected devices and systems in K-12 schools make them susceptible to cyberattacks, risking data security and operational disruptions. As noted by the Partner Alliance for Safer Schools (PASS), cyberattacks targeting K-12 schools have significantly risen in recent times. In their report "Combating Cyberattacks Against K-12 Schools," PASS identifies some key strategies including two-factor Authentication (2FA), software patching, and vulnerability remediation.

Cloud-based access control aligns with PASS recommendations, providing cutting-edge security features such as:

End-to-End Encryption

Two-Factor Authentication

Regular Software Updates and Patches

Advanced Threat Detection and Response

Redundant Data Backups

Aligned with the dedication to fostering a safe educational setting, educational institutions must verify that their cloud-based access control systems hold certifications in information security and risk management, such as ISO 27001, to uphold security standards. This international standard outlines best practices for information security management systems (ISMS), ensuring that the provider adheres to the highest standards of data protection and security. An ISO 27001 certification signifies that the cloud-based system has undergone rigorous testing and evaluation processes, highlighting the provider's dedication to safeguarding against data breaches and cyber threats.

2. Achieving Compatibility Across Diverse Systems

In K-12 schools, the integration of access control systems with a variety of other technological and security systems is crucial for creating a comprehensive and secure environment. These systems may include:

Video Surveillance
Linking video surveillance with access control provides visual confirmation of incidents, identity verification, and the ability to monitor access in real-time. This integration is essential for maintaining a secure environment for students and staff.

Emergency Response Systems
Integration with emergency response systems ensures a coordinated and swift action during crises. This can include lockdown protocols, alerting local law enforcement, and informing all relevant stakeholders instantly.

Visitor Management Systems
Combining access control with visitor management systems enhances the ability to track and manage guest access. This integration helps in screening visitors and maintaining logs for security audits.

Communication Systems
The integration with intercoms and mass notification systems allows for direct communication with specific areas or the entire school. This is particularly useful in emergency situations or for general announcements.

Intrusion Systems
Integrating access control with intrusion detection systems enables predefined responses to intruder alerts such as securing certain doors or areas of the school, alerting security staff, and automatically notifying local law enforcement agencies.

Student Information Systems (SIS)
Integrating SIS with access control facilitates the management of student movements and ensures that students are in the right place at the right time. It can also assist in attendance tracking and identifying truancy patterns.

By creating an ecosystem where these various systems work in synergy with access control, K-12 schools can significantly enhance their security posture, operational efficiency, and overall safety. Each system, when connected, contributes to a more informative, responsive, and adaptive security infrastructure, ensuring that students and staff are provided with a safe learning environment.

3. Collaborating with Local Municipalities

K-12 school districts' choices regarding access control and security systems are often shaped by the larger framework of municipal safety and security strategies. Integrating school security infrastructure with municipal systems promotes a comprehensive community safety strategy, aligning policies and procedures across various public spaces and institutions. This harmonization offers multiple benefits, including the sharing of critical security information and resources, streamlined response protocols during emergencies, and enhanced situational awareness for both school and municipal security personnel.

By adopting a consolidated security framework, municipalities and school districts can:

Leverage economies of scale, reducing costs associated with the purchase, installation, and maintenance of access control systems.

Facilitate the establishment of a centralized monitoring and response center, capable of managing incidents across various locations with efficiency and precision.

Enhance the efficacy of security measures, creating a safer environment conducive to the well-being and success of the community at large.

4. Managing Visitors and Temporary Access

A critical aspect of school security involves monitoring and controlling visitor access. Schools face the challenge of distinguishing between legitimate visitors and potential threats, requiring systems that can quickly and accurately verify identities. This is further complicated by the need to balance security measures with a welcoming environment for parents, volunteers, and other community members.

Incorporating advanced technologies such as web-based or mobile pre-registration, facial authentication, and automated background checks directly into the access control framework facilitates an instantaneous vetting process, significantly reducing potential security risks. Furthermore, this integrated approach supports customized access levels, granting visitors entry only to specified areas and during predetermined times, thereby minimizing unnecessary exposure of students and staff to potential external threats.

Consider this scenario: A parent is scheduled to assist in their child's classroom. They receive instructions to pre-register their visit online by providing essential personal details, uploading a valid ID photo, and specifying the purpose of their visit. On the day of the visit, the parent arrives at the school where a facial authentication reader at the door compares their face to the uploaded photo and automatically performs required background checks. Successful verification triggers the system to print a temporary badge, granting the visitor access to specific areas of the school based on the nature of their visit. Via process automation, the teacher is promptly notified of their arrival.

Cloud-based access control systems can enhance integration with visitor management platforms by automating real-time authorization, improving user experience, and offering dynamic access control.

5. Responding to Emergency Situations

Cloud-based access control systems significantly enhance a school district's emergency response capabilities through their advanced, real-time communication and control features. In the event of an emergency, such as a lockdown scenario, these systems provide administrators and security personnel with the ability to quickly restrict access to certain areas or the entire premises, directly from a web interface, mobile app, or double tap of a reader. This immediacy ensures that threats can be isolated more effectively, minimizing the risk to students and staff.

Additionally, cloud-based systems can be integrated with other emergency response tools, including public address systems and emergency notification services, allowing for comprehensive and coordinated communication during critical situations. This integration ensures that all stakeholders, including parents, teachers, and emergency services, are informed and can respond appropriately to the ongoing situation. The agility and interoperability of cloud-based access control thus play a pivotal role in safeguarding the school community by streamlining responses to emergencies, ultimately creating a safer, more secure educational environment.

When a school district adopts an access control system that is integrated with municipal security infrastructure, the collaborative effort in responding to emergencies becomes markedly faster and more efficient. This integrated system ensures seamless communication and information sharing between the school and local emergency services, dramatically reducing the time it takes to coordinate a response. In critical situations where every second counts, being on the same operational platform enables immediate action, such as lockdown procedures, video monitoring, and dispatching emergency personnel, ensuring a swift and targeted response to protect students and staff.

6. Consolidating Multipurpose ID Cards

In today's education landscape, leveraging a single identification card to be used in multiple systems streamlines the ID issuance processes and enhances access control measures. This integrated approach not only simplifies the management of student and staff credentials but also offers a host of benefits across various school functions.

Photo Identification
Photo ID cards provide visual references for identity verification and provide an additional layer of security by enabling the institution to confirm the authenticity of an individual's identity with greater confidence and accuracy.

Access Control
A multipurpose identification card streamlines access control to buildings, rooms, labs, and restricted areas, enhancing security while providing convenience for students, faculty, and staff.

Transactional Functions
Identification cards can simplify transactions for students, faculty, and staff and enable them to seamlessly access library services, copying, and other electronic resources.

7.   Overcoming Budget Constraints

Native or true cloud-based access control systems offer a cost-effective solution to the budgetary challenges faced by school districts. By leveraging cloud technology, schools can significantly reduce the initial software and maintenance capital expenditure required for an operational expense.

Cloud-based systems operate on a software as a service (SaaS) model, allowing schools to pay a predictable, subscription-based price that covers not only the software but also continuous updates and support. This model provides the flexibility to scale the system according to the institution's size and security needs, ensuring financial resources are optimized.

Older buildings pose unique challenges in selecting and implementing access control systems due to their architectural and infrastructural characteristics. A lack of modern conduits and spaces often complicates the installation of current security technologies. Therefore, prioritizing the integration of advanced, non-intrusive access control solutions, like wireless or minimally invasive systems, is crucial in such environments. These systems must not only adapt to the existing physical surroundings but also meet the digital and technological requirements of modern security standards.

With less physical infrastructure, including servers, schools can reduce long-term maintenance expenses and allocate these funds to other essential educational needs. This makes cloud-based access control an appealing and cost-efficient option for enhancing school security.

The Acre Commitment:
Delivering a Secure and User-Friendly Access Control Experience

Acre is reshaping security with the convenience of one innovative, flexible, and secure solution. **Widgets and custom dashboards** make your Access Control user experience simple, easy, and customizable to the way you want it. Deployed in the **cloud, on-prem**, or a **combination**, you can engage your best software experience from anywhere with your choice of Windows, macOS, iOS, Android, or any modern browser.

Our **RESTful API** enables users to deploy an extensive range of technologies through a straightforward process for easy integrations between acre Access Control and a multitude of systems:

- Single card solutions for photo ID badge, access control, time and attendance, payment, and other systems

- Blue light emergency phones to enhance safety

- Wireless locks to secure classrooms and common spaces

- Mobile credentials for a convenient and modern access control experience

- Biometric readers for high-security areas

- Video cameras throughout the facility

- Visitor management systems

- Intrusion and fire systems

- Active directory connection to streamline HR operations

In conjunction with our open API for integrations, users gain unrealized operational efficiency with the unique acre **FITS** (Functional Integration Toolkit Scripts) **process automation** capabilities. FIT Scripts combine programming, integrations, and workflows to deliver maximum efficiency daily, and reporting for event, system, and process analysis.

Acre Access Control leverages **redundancy and auto scaling** to further enhance the resilience and reliability of our cloud-based Access Control solution. This strategy ensures that the access control system remains operational and available, even in the face of unforeseen failures or spikes in demand.

Our company is proud to be **ISO 27001 certified** for our cloud-based access control and visitor management solutions, demonstrating our dedication to implementing robust Information Security Management Systems (ISMS) that meet the highest standards set by the International Organization for Standardization. This certification underscores our commitment to safeguarding data with utmost security and reliability.

Backed by 45 years as a physical security industry leader, acre security is a trusted name in safeguarding assets worldwide, known for our proficiency and our unwavering pledge to security excellence. Our state-of-the-art technology is scalable to worldwide enterprise levels and strikes the perfect balance between advanced security features and user-centric operability.

At acre security, our commitment to you is simple: We want to eliminate your risk. We don't want you guessing if you're secure. We want you to know. And, we have the experience, expertise, and execution to do it, with 21% of our company resources focused on R&D. The technology we choose, driven by the end user experience we desire, impacts the software we develop, and adheres to our go-to-market strategy of being a disruptor. Reshape your security perspective, explore new possibilities for productivity, and find innovative ways to meet your strategic business goals by simply choosing acre.

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