LUXER ONE

A Guide for Modular
Smart Locker
Technology

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What are Smart Lockers?

Smart locker systems are self-contained storage and distribution systems that can be securely sealed until a receiver / needs to access the contents placed inside. These innovative devices are integrated with technology that enable them to actively track and communicate shipping such as:

- Notifying receivers when items are ready for pickup.
- Managing access control for security and tracking purposes.
- Communicating when pickups have been completed, and by whom.

The user experience has been improved as well, offering seamless control via email and mobile text push notifications, and integrated external lights and security cameras for added peace of mind. Smart lockers systems offer an efficient, integrated method of ensuring successful delivery to receivers all within a small footprint. What's more, these lockers systems feature modular designs that can be easily increased as the need increases. This unique flexibility makes them well-suited for solving storage and distribution challenges when it comes to delivering items on a set schedule, such as textbooks or educational supplies.

Improving School Process Efficiencies with Smart Locker Deliveries

Modular smart lockers offer more than a solution for external shipping and receiving processes. These uniquely flexible systems enable schools to automate day to day processes, freeing up time for teachers, administrators, and school librarians to focus on more vital tasks and student focused interactions. With available integration with internal inventory systems such as library management system (LMS) software – Smart Lockers can give schools unmatched control over processes that might have previously robbed them of hours, or even days' worth of time that could be better spent on student instruction and interactions.

Signs You Need to Modernize Your Process

Process improvements are the way schools and businesses work to keep up with a changing world. Ideally these adjustments are based on observation and analysis, as invested teams work to find better ways of doing things.

But there are also cases where the processes that are normally used simply cannot be usedanymore, because conditions that were once considered normal have become potentially dangerous.

The New Now – How Schools Are Adjusting to Social Distancing

Across the country, school systems and universities have had to implement distance learning strategies. Some schools have opened in limited capacities with additional cleaning and sanitization processes, implementing emergency protocols and such as:

- 6ft social distancing policy
- Smaller Class Sizes
- Restricted hours
- Rotating classrooms

Operational Disruption on a Global Scale due to COVID-19

The continuation of the global pandemic has been difficult for everyone in the country. Shutdown conditions and working from home have proven challenging for many but have been necessary in the goal of staying safe and reducing the chances of exposure.

Seeking Safe Methods to Get Materials into Student's Hands

As challenging as it has been for students to maintain focus and discipline in this unique situation, it has been even more difficult for schools to provide ways for students to continue to have access to the resources they need to continue their studies. Almost an entire year into the pandemic, parents, students, and staff are realizing that you simply cannot access everything you need with a computer.

The challenge for school library systems to make all this work is the logistics. With heightened safety concerns and a need for cost effective solutions, many university systems have looked to automated technology that can complement their existing library management systems (LMS).

Turning a Pandemic Problem into a Smart Locker Solution

As a result of limited operating budgets and small numbers of on-site working staff – finding ways to improve workflow have become a top priority. This is especially true when faced with special requests for learning materials, which requires extra time and effort versus day-to-day staff work.

Luckily, forward-thinking companies have been designing solution-oriented technology such as interactive Smart Lockers that could provide an innovative solution to this very problem. Smart Lockers are already in use in university mailrooms across the country and have had great success improving efficiencies for student package pickup.

But this innovative technology-based solution may be even better suited for school library operations. Luxer One's smart locker systems are managed via email or SMS text messaging, offering an intuitive user experience that can be accessed by students and parents 24 hours a day.

What's more, when integrated technology syncs with a school's LMS systems, they can provide in-depth tracking on every item that is exchanged via smart locker. This vital inventory data can help library staff to ensure that student materials are available in a manner that is both convenient and conducive to contactless delivery.

Use Cases

Delivering Materials

The everyday challenge involved in operating a busy school campus frequently boils down to a problem of logistics. How can we ensure that every student gets the materials they need to be prepared for classes, homework, and special events?

You probably remember being in school when the teacher handed out stacks of materials. Passing papers person to person or taking the time to deliver individual items to students. While potentially effective, the time consumed and the chances that materials might not make it home because they were left inside desks or simply forgotten made the process slow and unreliable. Smart locker systems add an essential factor to this process, a documented chain of custody.

Peer to Peer Exchanges

When materials need to be distributed to students, Students can receive notifications on their computers, personal smartphones, as well ascontact information for their parent or guardian. Alternately, students can be provided with QR codes or access PINs that not only enable a student to pick up materials intended only for them, but an electronic record showing that notifications were sent, and when materials were retrieved. Peer to Peer changes such as these can easily be managed via Smart Locker system. For example, the school is planning an upcoming field trip, and needs to send home permission slips for parent review and signature. There may even be admission or trip fees that require the exchange of payments and receipts. These are time sensitive steps that would immediately benefit from a documented record of who is currently in possession of the materials.

Forms could be placed in lockers, with email notifications sent to parents that the form will be coming home. The student is issued a PIN to open a locker with the form, which is recorded in tracking software when the pickup takes place. Once the parent signs the form, the student returns the form to the locker,

Potential Applications:

- Textbook/IT Equipment Distribution
- Documentation Transfers (Such as permission slips, reports/transcripts)
- Flyer/fundraising distribution to student
- Yearbook Distribution
- Fundraising returns (securing funds and order forms)
- Art projects
- Student IDs
- Term Papers
- Diplomas and more

IT Equipment Exchanges

Many schools participate in programs that provide IT equipment such as laptops or tablet computer systems to students. Many of these technology tool lockout/tagout processes are managed daily and require daily reporting to assure all materials that were checked out were safely returned.

However, with pandemic conditions and distance learning or study from home programs, the need to find a method of effective distribution and tracking of these valuable assets becomes even more important.

Smart Lockers offer a solution that is perfectly suited for this issue. Personalized locker access PINs or QR coding create a secure method of ensuring that material pickup and returns can easily be accounted for and audited. This process can also be used to facilitate repair services, enabling students or parents to drop off faulty equipment securely, and receive personalized notifications when items are ready for pickup!

Potential Application:
- Laptop Distribution
- Tablet/iPad Distribution
- IT Repair Exchanges

Valuable Item Storage/ Equipment Exchanges

A longtime issue for school facilities that offer music and art programs is the safe storage of musical instruments, artwork, science laboratory equipment, and valuable production tools during the school day when it is not appropriate or possible for students to keep them on their person. Smart locker systems are modular in nature and offer a wide variety of configurations that can be customized to fit any item, including large musical instruments. Most importantly, with integrated software capabilities – the cost of security and need for student access to materials on shifting schedules can easily be automated, saving instructors and school staff valuable time during their busy day.

Smart locker notification processes can be randomized for easy student via access code and/or QR codes, creating a secure method of ensuring that pickup and returns can easily be accounted for and audited.

Potential Application:
- Band Instrument Storage/Exchanges
- Artwork/Art Supply Protection/Exchanges
- Science Lab Tool Storage/Exchanges
- Production Tools

Top Considerations When Choosing a Smart Locker Company

Throughout this paper, we have discussed the myriad ways that smart locker technology can benefit the day-to-day operations for schools. By providing a broad range of applications that can help automate day to day processes that would normally require extra time for your staff or faculty to coordinate and supervise (such as time-consuming curbside pickups), you will realize scheduling savings that enable school personnel to maintain focus on student interactions and teaching.

However, as with any technology-based system that will affect day to day operations, it is important to consider several factors before investing budget funding.

Money/Cost

While many smart locker systems can represent a significant cost investment (based on the size and extent of implementation), it is important to consider several options when choosing a company to partner with. As with many technology investments, your true value is realized with the number and depth of support services and technology tools that are included in your purchase package. It's essential to note that as smart locker systems can be considered a capital equipment expense, there are many options for costs to be managed via grant or government program assistance.

Luxer One's experienced team can even help filling out educational grant applications to help get the funding you and your school needs.

Installation Speed

For example, Sacramento-based Luxer One is one of the most popular brands of smart lockers in the industry, with over 100 million deliveries across the United States. They offer a variety of unit configurations, with lockers ranging in size from small to oversized. With multiple manufacturing facilities deployed in the US, Luxer One smart lockers can be installed within 2 weeks depending on configuration.

The installation process is quick to complete, offering little to no interruptions in regular school operations, and comes with continuous training so that all locker admins can quickly understand each feature and be up and running almost instantly!

Training

System education doesn't stop at installation though.

While integrated technology tools such as touchscreen access points and email and SMS/text integration for smart lockers systems are designed to be user-friendly and intuitive, whenever a new system is being implemented to be part of an institutions day to day processes, few qualities are more important than a vendor's willingness to provide training and ongoing user support.

As a result, it becomes paramount to know that your chosen smart locker system supplier has the capacity and willingness to provide active and involved customer support and training. Companies such as Luxer One offer full solution integration, including unlimited training and 24/7 customer support.

For example, smart lockers from Luxer One are constructed domestically, and are installed by expert dedicated teams under the leadership of project managers well versed in your specific school needs and requirements.

Integration

School Systems looking to utilize smart locker system solutions to assist in the automation of daily processes such as library order pickups, textbook distribution, or IT equipment exchanges will require more than the lockers themselves. Without integration with existing management systems or transitional support to upgraded systems, the assistance of the smart locker system may be inhibited.

Much like concerns over training, it is important to trust that your smart locker systems provider understands your goals and project requirements and has personnel and programs in place to help coordinate integration with existing system infrastructures. For example, Luxer One has found repeated success integrating their smart locker systems with Library Management System (LMS) technology to facilitate the process of delivery, pickup, and return for book hold orders. Partnering with a smart locker supplier with the experience and expertise to help coordinate and offer ongoing support for system integration issues can easily mean the difference between improving your day-to-day processes or burdening your staff and personnel with a constant need for troubleshooting and system maintenance.

Single Sign-On (SSO)

Single Sign-On is an authentication process that allows users to log in to multiple independent applications with a single set of credentials. With SSO, registered system users can easily access everything they need with just one login and password.

The time savings this offers for both students and staff managing their time during a busy school day is clear, but the benefits don't stop there. SSO integration reduces issues for help desk staff and IT administrators. Utilizing single sign-on strategies to streamline access can help improve IT security, improve user experience, and cut IT costs overall. Benefits of adopting an SSO strategy include:

- Increased student, staff, and IT productivity
- Improves data security capabilities.
- Reduces issues with forgotten or lost passwords.
- Streamlines the user experience.
- Increases software adoption rates.

Personal Data Security

Nothing is more important for school systems than protecting the integrity of systems that manage student data, confidential information, and historical records. This sensitive personal data must be protected at all times. This is especially important when managing integration between independent systems that may have access to shared data sets.

While most smart locker system applications do not involve access to or transfer of personal data, it's important to always consider potential data security risks when considering technology-based purchases.
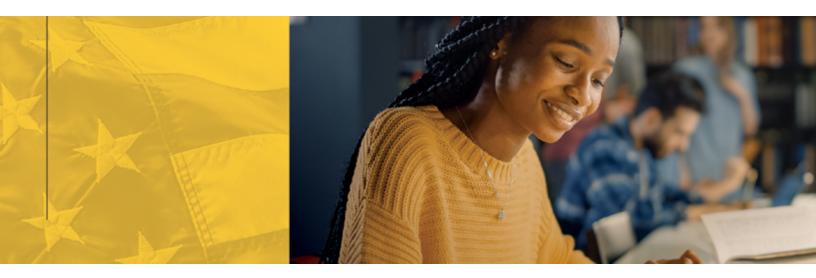
Make sure to discuss all options and potential vulnerabilities with your sales manager and implementation specialist prior to any systems installation, including smart locker systems.

Best Practices for Evaluating Potential Smart Locker Partners

As with any significant investment, it's always advisable to perform research and due diligence regarding potential supplier partnerships prior to purchase. Consider these best practices to assist you in your process:

- Ask for relevant case studies to get a clear idea of similar work performed.
- Seek references with contact information that can provide answers and information regarding their experiences working with a supplier.
- Seek company data including market share, history, and recent accomplishments.
- Ask specific questions regarding hardware design, data security practices, and software development.

- Seek partners with in-house technology development teams and support personnel.
- If you are planning on applying for funding assistance via a grant, seek supply partners who are well versed in the application process and willing to lend assistance with completing government grant application documents.

Luxer One Case Studies

Michigan State University

Since October 2020, Luxer One has been a strategic partner to Michigan State University during their implementation of contactless pick-up for library materials. Our scope of solution for Michigan State University's library featured a three-locker tower to serve their 40,000+ patrons. From purchase, a project manager was assigned to guide their team through installation requirements and library software integrations. The project manager was able to ensure that each staff member received applicable training to use the system. Following installation, Luxer One assigned an account manager as well as a full customer support team to help coordinate activities and support services moving forward.

California State University-San Marcos

In 2020, Luxer One became a smart locker provider for the California State University system when California State University of San Marcos requested that Luxer One's smart lockers be installed at their library's entrance for contactless pick-up for both students and staff members.

Kettering University

Since June 2020, Luxer One has provided smart locker solutions for Kettering University's library system. Luxer One has worked directly with the library team, with project highlights including a notable speed of implementation, complete integration with their library's management system (LMS), and the rebuilding of the patron experience by going contactless due to the COVID-19 pandemic.

Conclusion

Few environments are more vital to our communities and nation as our schools. From elementary to college, these diverse, busy campuses are designed to challenge and inspire young minds and set them on a path to a better future.

With the approaching concerns of a student body returning for in-class instruction, the need for responsible social distancing and increased vigilance against the dangers of exposure to the lingering risks of pandemic exposure – it's vital to know that your faculty and staff are focused on the important tasks of the day instead of spending extra time managing logistical challenges or ensuring that processes like textbook delivery or peer to peer exchanges are being handled correctly.

These issues and many more can be fully addressed and managed via the implementation of a smart locker system from Luxer One

With integrated technology systems, industry-leading technology-based process control, and a dedicated team of skilled and experienced professionals focused on making sure that your team is fully trained, supported and protected from data security threats – Smart Locker systems from Luxer One can provide the level of process automation and security you need to ensure that your students and staff have all the tools they need to do their absolute best.

How Luxer One Can Help

At Luxer One, we are committed to making life simpler by enabling the contactless exchange of educational materials, computers, and devices for school systems across the nation. That is why we designed solution-oriented technology such as interactive Smart Lockers that could provide an innovative solution for this exact need. Smart Locker systems enable schools like yours to automate package delivery, notification, and distribution. This contactless approach offers a safe and reliable method for delivering learning materials and supplies to students.

Superior Technology
Technology is in our DNA. Our engineer-led company has pioneered the features that have become industry-standard. Through our innovations, we're able to ensure schools have access to the very latest in systems integration, data security, and user support in the industry!

- In-House Software Development
- In-House Hardware Design
- Photographic Proof-Of-Pickup
- US Manufacturing

- Cloud-based camera footage with archive storage capabilities
- Library Management System (LMS) Integration

Unparalleled User Support

Amazing technology is nothing without a dedicated team to lend its support. Our team is made up of tremendously talented people across the country who are committed to our mission of 100% package acceptance.

- 24/7 Live Phone & Email Support
- Multiple Tiers of Technical Support
- Customer Success Teams
- Regional Support Across The USA

Industry Leading Smart Locker Design and Construction

From the hardware to the software to the internal electronics, our locker components are designed in-house. We take pride in our high-quality smart locker system that you can trust.

- Designed & Engineered in California, Built in the USA
- Features the only UL locker certification in the US or Canada
- Heavy-Duty Corrosion-Resistant Steel with Long-Lasting Powder Coat Paint
- Modular Doors
- Internal Hinges
- Tamper-Proof Internal Hinge Mechanisms
- Intuitive User Experiences
- IOS-Powered Touch Display for Familiar Interface for Users of All Ages
- Wheelchair Accessible in Compliance with ADA Standards for Accessible Design
- 24/7 Video Surveillance
- Cloud-Based Surveillance System on Opposite Wall Monitors Full Locker Area
- Temperature controlled hardware so lockers can be installed in all climates in the US

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