

**PTI** SECURITY  
SYSTEMS

**ASSA ABLOY**

# Smart Tech

Smart Door Latches Level Up  
Self-Storage Security



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# 1 Furniture. Appliances. Collectibles. Business Inventory

These are among the top 10 most common items people hold in self-storage facilities today. Self-storage utilization for these items and a host of others is so common that in 2023 14.5 million households in the United States rented at least one self-storage unit.



This booming demand has propelled the global self-storage market to a valuation of \$58.26 billion (U.S. dollars) in 2023, with projections soaring to \$71.5 billion by 2028. (<https://www.statista.com/statistics/1036943/self-storage-market-value-worldwide-forecast/>).

Current Valuation  
of Self-Storage

**\$58.26B**

U.S. Households  
Renting Self-Storage  
Units

**11.1%**

## BUT HOW DID WE GET HERE?

# 2

## Birth and Early Growth of Self-Storage

The origins of the self-storage industry can be traced back to the 1850s in Britain, where banks, unable to securely store valuables for customers on extended travels, began constructing dedicated warehouses. This concept eventually made its way to the United States in 1906 when Martin and John Belkins, founders of Belkin Van Lines, built the first concrete and steel warehouse, laying the groundwork for America's self-storage industry.



### Evolution in the United States

It wasn't until the 1960s that self-storage emerged as a distinct industry in the U.S. The introduction of garage-style units quickly gained traction, leading to significant expansion throughout the U.S. and Canada by 1978. The late 1970s to early 2000s saw increased disposable income and lower commodity costs, resulting in more household possessions and greater demand for storage. Economic downturns in the late 1980s and early 1990s, along with a commercial real estate crash, led many to downsize, further fueling the industry's growth. (<https://storenational.com/blog/history-self-storage/>)

### Recent Growth and Current Landscape

The past decade witnessed unprecedented growth in the self-storage industry, partly accelerated by the Covid-19 pandemic. As employees scrambled to convert their living space into workplaces and residents of large cities fled to suburbs and less populated rural communities, self-storage operations benefited from increased demand. Hybrid work schedules have helped to keep demand high as work-from-home became a normal facet of the business world. However, recent interest rate hikes have tempered this growth, impacting home sales and, consequently, self-storage demand.

***Today, the U.S. boasts over 50,000 self-storage facilities, occupying more than 1.6 billion square feet.***

# Technological Advancements and Customer Expectations



As the industry became more mainstream, technological advancements significantly enhanced the customer experience. Early innovations included climate-controlled units, followed by video surveillance, internet connectivity, and sensor capabilities. Simultaneously, a tech-savvy customer base emerged. Millennials, who now make up about 40% of self-storage renters, are the digital native generation. Expecting the benefits of reliable technology in all aspects of their lives, they demand a seamless, tech-enhanced self-storage rental experience that includes online rental capability, 24/7 access, and mobile management of their rentals. (SSA: Self-Storage Demand Study 2023 Edition)

With significant disposable income and a growing need for external storage, today's tech-savvy consumers are passing over self-storage facilities with traditional security infrastructure, opting for the advanced security, efficiency, and convenience smart technology can provide.

## Security Challenges in Self-Storage

Access control and security are pressing issues for self-storage operators, particularly as facility sizes expand and blind spots proliferate. Larger properties inherently come with increased risks of security breaches as they become harder to monitor and manage, making robust security measures essential.



## Theft and Loss

Theft and vandalism pose severe threats to the reputation and financial stability of self-storage operators. These incidents can deter potential tenants, forcing operators to lower their street rates to attract new customers. Additionally, the direct costs associated with theft and vandalism, such as lock replacements and insurance claims, can negatively impact the facility's Net Operating Income (NOI), reducing its overall valuation.

# The Complexity of Automation

Access control and security are pressing issues for self-storage operators, particularly as facility sizes expand and blind spots proliferate. Larger properties inherently come with increased risks of security breaches as they become harder to monitor and manage, making robust security measures essential.



## Access Control

Effective access control is about more than just keeping the wrong people out; it involves a nuanced management of who can enter the property as a whole, who can access specific zones, and who can enter individual units. This requires a network of devices that authorize entry for approved individuals while barring access to others. Additionally, operators must have the capability to lock out tenants who are behind on rent payments, ensuring non-paying individuals cannot access the facility or their units. As automation trends continue, operators need systems that allow remote adjustments to permissions and access levels, providing seamless control over security measures from any location.



## Deterrence

Deterrence remains a cornerstone of self-storage security. Simple measures like gates and signs are often insufficient because they can be bypassed easily. Intruders can cut through fences, ignore signage, and make themselves unidentifiable by wearing face coverings in view of cameras. To effectively deter unauthorized access, facilities need multiple layers of security. During the COVID-19 pandemic, for instance, mask-wearing made many camera systems less effective. Therefore, a combination of deterrents -- including advanced surveillance and robust physical barriers -- is crucial in reducing the risk of theft and break-ins.



## Reactivity is too Late

Currently, the industry's response to security breaches is largely reactive. Whether it's a breached gate, a cut lock, detected motion, or an unauthorized person captured on camera, action is usually taken after the fact. This delay allows intruders time to commit theft and escape before law enforcement arrives on scene. While advanced technologies can speed the detection of break-ins, they still fall short of identifying and preventing unauthorized access before a crime occurs. While on-site personnel is the best and most immediate means to respond to a break in, it is not always practical or economical to employ. Therefore, automated and immediate notifications can help to mitigate some risk by alerting tenants and operators in the moment.



## 3 Evolution of Tech in Self-Storage Facilities

For decades, the self-storage industry remained largely untouched by technological advancements, primarily due to budget-focused owners and operating costs amid increasing competition. Here's why:

Historically, self-storage has been a highly profitable venture, requiring minimal investment to maintain operations. Despite facilities often appearing outdated, high rental rates and low unit availability kept profits high, diminishing the perceived need for technological upgrades by cost-conscious owners and operators.

However, the landscape has changed. The surge in the number of self-storage units has intensified competition, pushing facility owners and operators to find ways to stand out.

Additionally, the proliferation of self-storage facilities has driven rental rates down while labor costs have risen, challenging operators to maintain or lower rates despite higher operational expenses. To stay competitive, operators are turning to increased automation, which allows for remote site management and unit rentals without direct staff involvement.

**Today's self-storage operators face the dual challenge of running cost-effective facilities while meeting evolving tenant expectations for enhanced access control, improved security, and real-time notifications.**

# Limitations of Traditional Security Methods

Traditional security methods like simple locks and latches have long been considered cost-effective deterrents against break-ins, and they work some of the time to keep out uninvited individuals. But they can be breached without alerting operators or tenants. How easily can padlocks be compromised? Independent tests show that common padlocks can be cut in just 3-5 seconds with a diamond wheel. Even those designed for self-storage with shackle-protecting collars or hardened steel shackles offer little resistance against cutting tools. Big-box store padlocks, often lacking hardened steel shackles, are particularly vulnerable to bolt cutters, making them unsuitable for high-security needs.

Adding door alarms can help, but these systems often fail to send instant notifications, leaving tenants and operators who are off-site unaware of breaches resulting in damage or theft for hours, days or weeks. Also, adding door alarms for intrusion detection increases operator costs, and frequently increases tenant rates.

Also, traditional methods rely on keys or combination locks. These are vulnerable to loss and duplication, and even observation when an tenant accesses their unit. Sharing access with another person requires risking loss of a key or giving out a combination, potentially compromising security. Another downside of traditional methods is their “dumb” construction. In the age of automation, operators need to know the busiest times when units are typically accessed to be able to make informed staffing decisions and schedules. Older locks and latches are not powered by or connected to an overarching access control system to provide the necessary data.



# 4

## Emergence of Smart Door Latches as a Solution

Legacy systems were the foundation for more intelligent, connected solutions that overcome previous limitations through several innovations, enhancing security and convenience for tenants and increasing operational efficiencies for operators and owners. Smart door latches have emerged as a superior alternative to traditional latches and padlocks. They offer enhanced security by eliminating the vulnerabilities of physical padlocks while sharing critical data with tenants, notifying them of every access, ensuring transparency and security. They also offer significant convenience by allowing seamless access sharing without physical keys or combinations, improving user experience. Smart latches also gather valuable data on access patterns, helping operators optimize staffing and resource allocation.



As the industry adapts to operator and tenant demands for improved security and convenience, along with operational efficiency, smart latches like the ProEdge Smart Lock by PTI Security Systems represent a critical advancement. ProEdge simplifies door security for both operators and tenants with its next-generation Bluetooth technology that provides key-less access, automated rentals, and overlocking functionality. Accommodating both left- and right-hand doors, either flat and corrugated doors, new construction or as a bolt on addition, ProEdge gives tenants secure and quick access through their smartphones.

*In the age of automation, operators need to know the busiest times when units are typically accessed to be able to make informed staffing decisions and schedules.*

# Need for Stronger and Smarter Security

With the growth in the number of self-storage users and the increasing value of stored items, the need for robust security measures has never been more critical. Modern self-storage facilities need to address several security challenges:



## Theft and Vandalism

As more valuable items are stored, facilities become attractive targets for theft and vandalism. Enhanced surveillance systems and secure access controls are essential components in mitigating these risks.



## Customer Confidence

Robust security measures enhance customer confidence, making it more likely for them to choose and remain with a particular storage provider. Features such as individual unit alarms, secure access codes, and 24/7 video monitoring are becoming standard expectations.



## Increased Rental Duration

Many renters are opting for longer rental periods, often exceeding one year. This extended duration increases the necessity for stronger security measures to protect items over extended periods.



## Diverse User Base

The self-storage customer base includes a mix of personal and business users, each with different security requirements. Businesses, in particular, may store sensitive documents and valuable inventory, requiring higher security standards.



## Technological Advancements

The advancement of security solutions, such as access control systems, keypads, card readers, and smart locks/latches, is not only a response to the growing market but also a driver of its expansion. These technologies help in mitigating risks associated with theft, unauthorized access, and property damage.

**The self-storage market is experiencing robust growth driven by both consumer and business demand. As the market expands, the importance of implementing stronger and smarter security solutions becomes paramount.**

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*Smart door latches are emerging as a game-changer in the changing self-storage security landscape. These advanced latches offer a suite of features that enhance both security and operational efficiency, making them an essential tool for modern storage facilities.*

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## 5 The Importance of Advanced Security Solutions

To combat these security challenges faced by self-storage facilities, self-storage facilities must invest in advanced security technologies. Solutions like ProEdge's managed smart lock system provide robust access control, reducing the likelihood of unauthorized entries and protecting against theft and vandalism. Enhanced surveillance systems, secure access protocols, and regular security audits are also essential in maintaining a safe and secure environment.

By addressing these security challenges proactively, self-storage operators can protect their assets, maintain their reputation, and ensure long-term tenant satisfaction and loyalty. Investing in strong and smart security measures is not just a necessity but a critical strategy for sustaining growth and success in the self-storage industry.



**ProEdge Smart Latch**  
Simple - Sleek - Elegant

# Smart Door Latch: Features and Benefits



## Real-Time Monitoring and Alerts

Connected to the internet and integrated with sophisticated software platforms, smart door latches provide real-time monitoring and alerts. These locks can be managed remotely, offering critical data such as lock state, tamper alerts, and unit access. This capability allows remote site managers to keep an eye on their facilities in real time, ensuring prompt responses to any issues.



## Seamless Integration with Existing Security Systems

Smart door latches are designed to integrate effortlessly with existing security systems. This means facilities can upgrade to smart technology without the need to overhaul their current setups, leveraging the benefits of smart latches while maintaining their established systems.



## Enhanced Security and Peace of Mind

Smart door latches eliminate the concerns of traditional locks through advanced digital security measures and encryption. Smart latches like the PTI ProEdge also feature a built-in accelerometer that trigger tamper alerts, effectively serving as both locks and alarms. This dual functionality provides peace of mind to site managers and tenants.



## Improved Operational Efficiency

Streamline rental processes by enabling automatic mobile app invitations, reducing the need for site managers to handle keys or combinations. Tenants can move from an online rental to accessing their unit without staff assistance. Additionally, these systems can automatically overlock units when payments are overdue and provide direct links to payment portals through integrated mobile apps.



## Tenant Convenience

Tenants no longer need to worry about losing keys or forgetting codes; the mobile apps associated with these latches make unit access simple and intuitive. This focus on user experience results in a seamless and hassle-free interface for tenants.



## Cost-Effectiveness

These systems reduce the need for on-site staff, allowing owners and managers to deploy their workforce more strategically. The data collected can inform better decisions regarding office hours and operational practices. Engineered for durability, smart door latches represent a sound investment in technology, offering long-term benefits and cost savings.

# Overview of ProEdge Technology

ProEdge Smart Latch can be managed remotely, allowing real-time granting or revoking of access.



By using the PTI tenant facing mobile application StorID, renters can enter the facility via Bluetooth. Tenants open the app on their smart device and tap a button to unlock the gate. When they reach their unit, the app communicates with the smart latch via Bluetooth to unlock the unit seamlessly, eliminating the need for physical keys.

The StorID app streamlines the access process by storing user credentials and access permissions in the Storlogix server. When a renter needs to access their unit, StorID verifies their credentials with the cloud server. If validated, the server authorizes the access request, and StorID communicates with ProEdge via Bluetooth. The smart latch then unlocks the unit and sends a confirmation back to the Storlogix cloud server, allowing

operators to monitor access events in real time. By using renters' smartphones to communicate with the cloud server and smart lock, facilities can enhance security and convenience while reducing face-to-face interactions. Operators can monitor and control the system through a web-based interface, optimizing both security and operational efficiency.



# Long Term Benefits

## Tenant Access

The 2023 Self Storage Demand Study found that 78% of current renters value anytime access, and 37% are willing to pay extra for it. ProEdge enables tenants to access their units anytime via the StorID mobile app. This feature allows operators to charge premium prices for units with smart technology.

## Data Insights

ProEdge provides real-time and historical access data to StorLogix Cloud, offering operators valuable insights into tenant activity, such as peak visiting times and visit frequency. This data helps optimize staffing and resource allocation, potentially reducing operational costs. ProEdge also alerts operators to tampering, enabling quick responses to suspicious activity.

## Security & Durability

- ProEdge enhances security by providing advanced monitoring, real time alerts, overlock capability, a design that thwarts tampering, and all-weather stability.
- ProEdge testing included an aggressive 100k of cycles simulating 45 years of wear and tear on mechanics and motor and demonstrated extremely minimal wear

## Minimal Maintenance

- **Integrated Hardware:** ProEdge eliminates the need for separate door latches and locks.
- **Battery Longevity:** Batteries last for about three years, or 6,500 lock cycles, reducing maintenance frequency.
- **No Installation Hassles:** ProEdge requires no servicing from installers, unlike traditional security solutions.

*Overall, ProEdge offers significant long-term operational benefits, improved ROI, and a streamlined, cost-effective solution for self-storage facilities.*

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# ProEdge in Action

The first self-storage site to use the ProEdge Smart Latch by PTI is SupaStorage in the UK. Installed on 106 units, tenants served as beta testers, providing feedback about the automated access and technology experience. The installation process was straightforward, facilitated by adaptable brackets that made retrofitting simple and demonstrated the ease of marrying ProEdge with existing door structures. Customers experienced no major issues and accepted the new technology seamlessly, indicating a smooth transition to the advanced system and added convenience. The system's reliability was further demonstrated by the absence of significant access failures or battery issues. Over the four-month testing period, there were 3352 access and exit occurrences across the 106 units and all latches performed well with no battery replacements required and less than 1.4% errors.

ProEdge's integration with other security measures, such as StorLogix Cloud, StorLogix Mobile, remote alarms and CCTV monitoring, provided a comprehensive and efficient security solution, well suited to high-demand environments like central London. This successful implementation underscores the potential of smart latch technology to transform self-storage security by enhancing automation,



improving customer experience, and ensuring robust security measures. One feature that SupaStorage's ProEdge customers have found especially valuable is the additional security convenience surrounding access management. This is especially true in the case of multiple users for one unit who can use their smartphones for access rather than the less secure option of sharing a PIN.

"We've sold PTI to many customers over the past several years on the basis of its stellar reputation for reliability and advanced tech," noted Barry Rimmer, Non-Executive Director at PTI Security Systems Europe and CEO/Owner Yellowtail Enterprises Director at Doncaster Security Operations Centre (DSOC). "Now, the addition of Bluetooth products including smart latches and keypads give self-storage operators another reason to look to PTI when they want to level up



to a fully automated solution that creates operational efficiencies and a more convenient tenant experience.”

Another facility in central London, Plus Storage, which features 40 units self-storage units built under a railway arch, is in the process of completing its ProEdge installation. This location will also serve as a test location to gather best practices and learnings for adopting Bluetooth smart latch technology. Big Yellow, a prominent self-storage operator in the UK with around 130 stores, has pre-ordered ProEdge for the ground floor units at a new facility. The initial installation included 85 ProEdge latches at its Regno Unito location with an eye toward expanded usage that will enhance Big Yellow’s reputation with prospective and current tenants while enabling more streamlined automation for its facility operators.



**“ Now, the addition of Bluetooth products including smart latches and keypads give self-storage operators another reason to look to PTI ...**

Barry Rimmer  
Non Executive Director - PTI Europe

# 6 Future Trends & Opportunities in Smart Door Latch Technology

## Industry Growth

The self-storage industry is poised for significant expansion, with a projected compound annual growth rate (CAGR) of approximately 6%. While the initial surge during the pandemic led to an explosion of new facilities, this growth is now stabilizing. Rental rates have leveled off, and the increased availability of units has tempered the previously soaring revenues. As a result, self-storage operators are adopting more conservative spending practices, focusing on maintaining profitability amid a competitive market.

## Market Consolidation

The industry is currently experiencing a wave of consolidation. Smaller, short-term investors who entered the market pre-pandemic are now selling their facilities, creating opportunities for Real Estate Investment Trusts (REITs) and long-term investors to acquire properties at favorable post-COVID prices. This trend is reshaping the market, allowing larger entities to expand their presence.

## Differentiation Amid Intensifying Competition

As the number of facilities grows, competition for tenants intensifies. To stand out, operators must offer enhanced automation, improved aesthetics,

superior security measures, and a better overall rental experience. With tenants increasingly reliant on smart devices, these technological advancements are crucial for attracting and retaining customers. Manufacturers are responding by focusing on both hardware and software development to provide differentiating features.



## Innovation and Adaptation

Historically, self-storage manufacturers prioritized hardware over software, maintaining established product lines without significant innovation. However, the influx of capital during the pandemic and the subsequent rise in competition have driven a shift toward more innovative products and services. The demand for smart devices that offer access control and data analytics is pushing manufacturers to integrate software solutions with their hardware, enhancing the tenant and operator experience.

## Accelerated Product Life Cycles and Adaptation

With technology becoming integral to the self-storage experience, product life cycles are shortening. Manufacturers must continuously innovate to stay competitive, as tenant expectations evolve and the costs of technology decrease. This rapid pace of innovation pressures companies to frequently update their offerings or risk obsolescence.

## Strategic Focus on User Experience

Manufacturers now recognize the importance of user experience, prioritizing the development of cohesive hardware and software solutions. By focusing on the evolving needs and trends within the self-storage industry, they can deliver products that enhance functionality and aesthetic appeal, providing significant value and differentiation in a competitive market.

# Next Gen Self-Storage Solution

Smart locks and latches play a key role in a facility's overall access control and security solution. Unlike antiquated latches and padlocks that have historically been a staple in self-storage facilities, smart latches and locks open up a new world for both operators and tenants in a variety of ways that include:

- Increased security – smart locks are not vulnerable to being picked or compromised as they are tied to a specific device.
- Additional data – User identification, access events, and errors can be transmitted in real time to tenants and operators.
- Communications – Tamper events trigger immediate notifications.
- Streamlined Sharing – Tenant access can be extended without increasing operator burden or compromising security.

The early success at SupaStorage, combined with the upcoming planned installations, showcases the transformative potential of ProEdge. These implementations highlight not only the practical benefits of streamlined installation and seamless integration with existing systems, but also the enhanced security and user experience provided by advanced tech-driven features. As more facilities move toward adoption, ProEdge can demonstrate its scalability across different storage environments and footprints, and the industry stands to gain significantly in operational efficiency and customer satisfaction. With the ProEdge Smart Latch, PTI is poised to create a new standard for security and convenience, paving the way for a more automated and user-friendly self-storage experience.

**For pricing & availability, contact PTI Security Systems.**

# The End

Contact PTI Security Systems For More  
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