



Proptech Report

Inside the real estate trends impacting
the security solutions market

Presented by:



Prepared by:



Introductory Remarks

On behalf of SIA's Proptech Advisory Board (PTAB), I am excited to bring you this one-of-a-kind report on the commercial and multi-family real estate market and the security industry. I believe you will find the insights eye-opening and the comprehensive information within the report to be a competitive advantage for your business.

The PTAB was formed in April of 2022 by SIA's board of directors with a goal to foster engagement between the proptech community and the global security industry. News such as \$32 billion invested in real estate tech companies in 2021, and proptech ranked No. 8 on SIA's list of 2022 Security Megatrends was enough to spark the idea that we, as an industry, needed to engage. And that we did.

We are thrilled to bring this valuable resource to the industry as our initial project to support the development and distribution of educational content. Our next step is to layer an industry lens on this report. Keep an eye out for additional content created through blog posts, videos, webinars, and in-person events.

Thank you to CREtech for being a partner in collecting the report data and the commercial real estate market for providing their insights and thoughts. Appreciation also goes to the SIA Board for funding the development of this report, and a special thank you to the SIA staff and fellow PTAB members for their dedication and partnership. And lastly, thank you for seeing the value in a report like this.

If you are interested in joining the SIA Proptech Advisory Board or have feedback on the report, please email me at lee@leeodess.com and Edison Shen, Director of Standards and Technology, Security Industry Association, at eshen@securityindustry.org.

Enjoy. This is just the beginning!



Lee M. Odess
Chair, SIA Proptech Advisory Board

SIA's mission is "to be a catalyst for success within the global security industry through information, insight and influence." The 2022 SIA Proptech Report is a notable example of how SIA strives to fulfill its mission with the direct involvement of its members and with the dedicated support of our professional staff. The quality of the SIA Proptech Report reflects the valuable input provided by the SIA Proptech Advisory Board and the contributions made by Edison Shen, SIA director of standards and technology, to ensure that the report met the level of quality expected by our members. SIA looks forward to continuing to deliver compelling content that examines security trends in various vertical markets.



Don Erickson
CEO, Security Industry Association (SIA)

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Report Objectives

The *SIA Proptech Report* evaluates proptech¹ trends, market size, and buying interests affiliated with security solutions in this industry. The key outcomes of this research report are intended to provide a conducive platform for SIA and its members to create profitable and enduring businesses geared toward growth prospects.

The findings address the following core research questions:

- What are the security technology priorities for decision makers within real estate sector?
- Which vertical markets have the most growth potential?
- What are the market barriers and drivers for security solutions as part of proptech investment?



¹Property technology, also known as proptech, or real estate technology, can be defined as it relates to commercial real estate (comprising office, multi family, retail and logistics) as the application of information technology, including software and hardware to streamline real estate operations and enhance efficiencies. Proptech tools and platforms address different segments of the asset lifecycle. The goal is to simplify how real estate companies own, lease, sell, acquire, manage, operate, rent, research, and invest in real estate (“What Is Proptech, and What Does It Mean?,” HqQ, 2020; “What Is Proptech? Understanding Commercial Real Estate Technology,” Dealpath, 2022).

Executive Summary

Background

CREtech was commissioned to conduct a research report on behalf of the Security Industry Association (SIA), the leading trade association for global security solution providers.

Market Opportunity

SIA identified the proptech market, and specifically, the security solutions landscape as it relates to commercial real estate as an opportunity for its members. This against the backdrop of some \$32 billion of venture investments made in the proptech ecosystem in 2021. The proptech market's growth in 2021 was to a large extent due to the COVID-19 pandemic accelerating the pace of technology adoption in the commercial real estate industry.

The overarching objective of this research initiative was to identify and forecast trends in the security solutions market as it relates to commercial real estate, and in particular, how these dynamics are likely to influence the purchasing decisions of building owners and operators for security solutions. In addition, the report analyzed several security solutions categories, outlined in the following section to ascertain their respective market sizes in the United States, as well as projected expenditure and growth potential of the associated verticals. The analysis is supported by both qualitative and quantitative measures.

Results Summary

The report comprises three sections: (1) a survey section; (2) a 1:1 interview section; and (3) a solution categories market analysis section.

Survey

- Access control is the most prevalent security solution deployed across real estate portfolios according to 80% of respondents
- Security solutions scored 7 out of 10 or higher as a priority within technology/innovation strategies by roughly 60% of respondents
- 22.8% deployed security solutions with no brand awareness with the remaining 77.2% respondents showing limited recognition of brand awareness.
- A majority of respondents rated current levels of interoperability between different security solutions at 37.9% for "fair" and 24% for "poor"
- Lack of integration and cost were major pain points with security solutions
- Approximately two-thirds of respondents cited cost savings on building operations as the primary driver for deploying/considering security solutions above safety and wellness
- Over 50% of survey respondents indicated no plans to update security solutions
- 81% of security solutions decisions are made internally over a third-party
- Nearly two-thirds of security solution information are sourced referrals
- Almost 30% ranked access control, video surveillance and facial recognition categories as the most important other types of building tech solutions

1:1 Interviews

- Both access control and video surveillance were the most prevalent security solution deployed across real estate portfolios at almost 85%.
- Security solutions are deployed more frequently in specific assets at 57.7%, compared to portfolio-wide, 42.3%.
- Almost 40% cited safety/wellness as the most important driver for deploying security solutions.
- Over 70% of respondents cited intentions to increase security deployments and 30% reported they were considering updating or replacing current deployments.
- 65% allocate between 0-10% of their total tech investments towards security solutions.
- Energy management solutions are deployed over 10% more than access control, video surveillance and facial recognition systems, with 73% of respondents reporting deployment of energy management solutions.

Commercial Real Estate Market Dynamics

After years of tremendous growth and record investments, the commercial real estate market has entered a period of uncertainty. That said, there is plenty of opportunity as the commercial real estate market is resilient, composed of many diverse types such as office and multifamily, and continues to reinvent itself. The data represented this sentiment in the survey and the 1:1 interviews and quotes from commercial real estate executives and is showcased throughout this report and within the market drivers, barriers, and security market analysis.

Market Drivers:

- Tenant demand
- New construction/renovation plans
- Changing workplace culture
- Consolidation in proptech industry drives opportunities
- Adoption by leading commercial real estate companies
- Lack of integration amongst tech solutions
- Lack of clear ROIs
- Lack of specific budgets for tech investments
- Lack of personnel to vet and onboard solutions
- General lack of appetite for technology risks
- Energy management solutions is a main priority

Market Barriers:

²Specific assets in this context refers to a situation in which commercial real estate companies have implemented security solutions in select buildings (or assets), whereas portfolio-wide implies that security solutions have been implemented across all buildings (or assets) within a company's portfolio.

Solution Categories Market Analysis

This analysis includes the total assessable market (TAM) of the top three solutions with the most growth potential in the commercial real estate, office and multifamily vertical markets:

1. Video Surveillance

- TAM \$13.3 billion in 2022 and projected 13% CAGR over 2022-2027
- Deployed by about one-third of aggregated participants

2. Audio Surveillance

- TAM \$632 million in 2022 and projected 17.2% CAGR over 2020-2025
- Only deployed by 9% of aggregated participants
- Caveat: relatively low TAM base

3. Identity/Credentialing Management

- TAM \$240 million in 2022 and projected 13.6% CAGR over 2020-2025
- Currently deployed by 53% of aggregated participants



Conclusions and Recommendations

A consolidated, cohesive viewpoint of the surveys, interviews and independent market research findings reveal the following:

- Contrasting results were observed between survey and interview respondents when considering the most prevalent drivers in deploying/considering security solutions:

31% of survey respondents cited cost savings on building operations, whereas 39% of interview respondents cited Safety/Wellness

- Future security solution investment strategies also differed:

55% of survey respondents cited no plans, while 73% of interviewees referenced increasing deployments

- Energy management is the most commonly referenced other building technology solutions deployed, at 68% on an aggregate basis

In conclusion, the research reveals the enormous upside potential for the security solutions industry within the commercial real estate sector. However, for it to truly reach this scale, it will require technology providers to understand and adapt to the unique adoption challenges this massive industry presents.

Survey Results

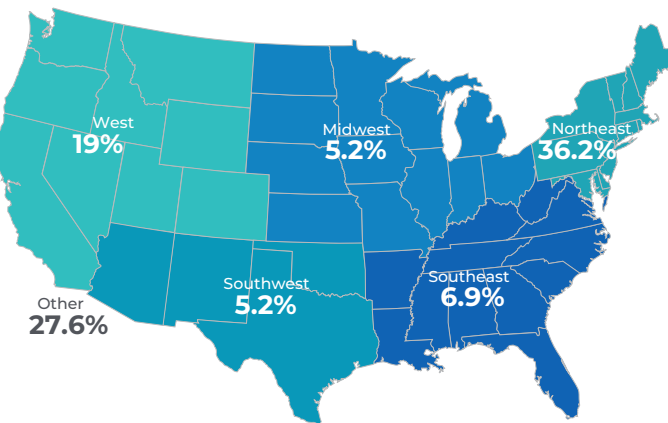
The survey was designed to gauge the commercial real estate sector’s perspective on security solutions trends in the marketplace.

Methodology

The survey pool consisted of regional real estate companies with a focus on professional services/consultancy, owners/developers, financial organizations, facilities management and others in the real estate industry. Surveying was conducted by commercial real estate market research firm CREtech on SIA’s behalf.

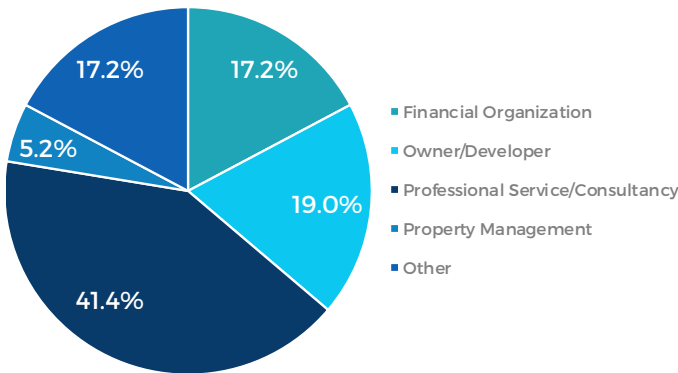
Demographics of Survey Respondents

Where are you located?

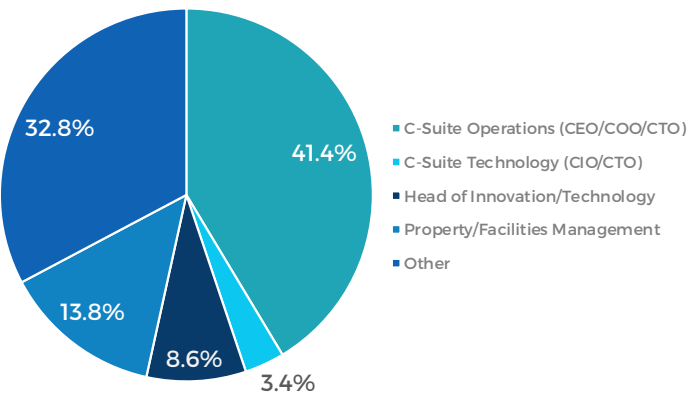


Notes: “Other” refers to survey respondents who do not reside in the United States

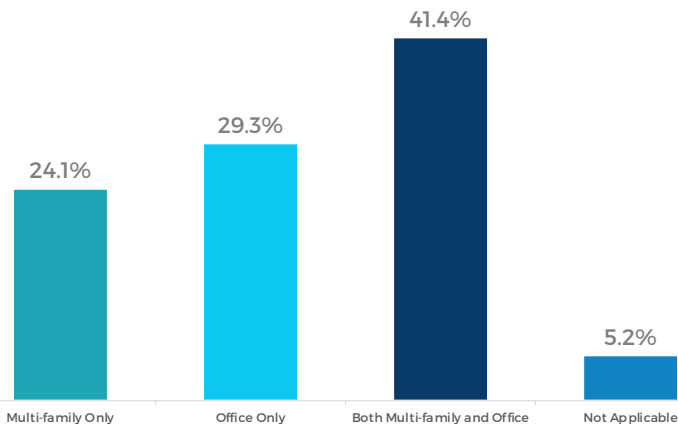
What type of organization do you work for?



What is your title at the organization you work for?

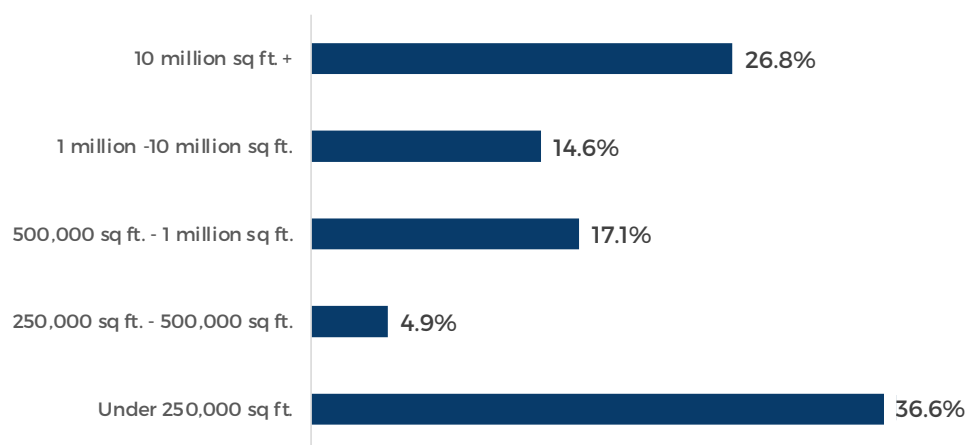


What vertical(s) do you operate in?

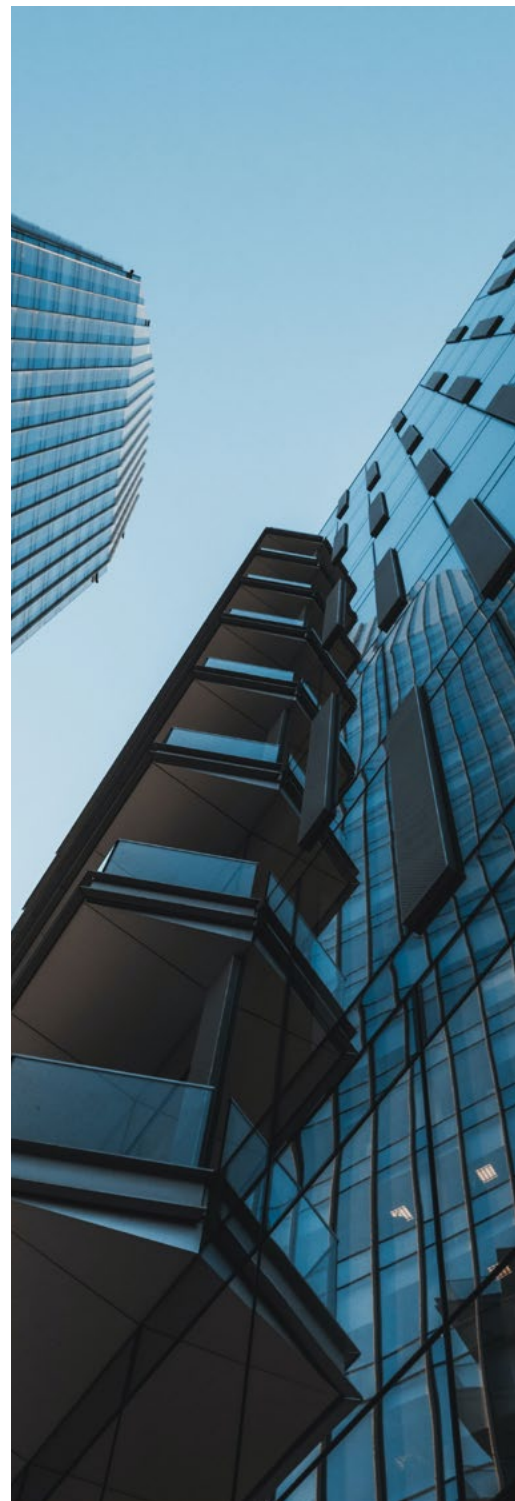
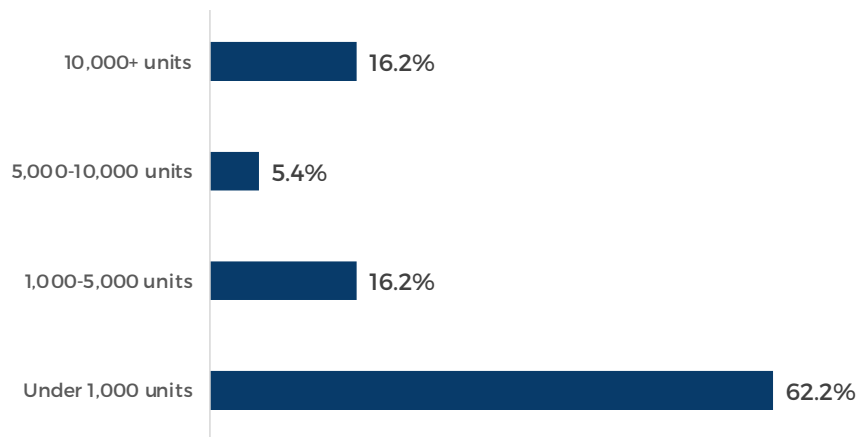


What is the size of your portfolio?

Office Portfolio



Multi-Family Portfolio



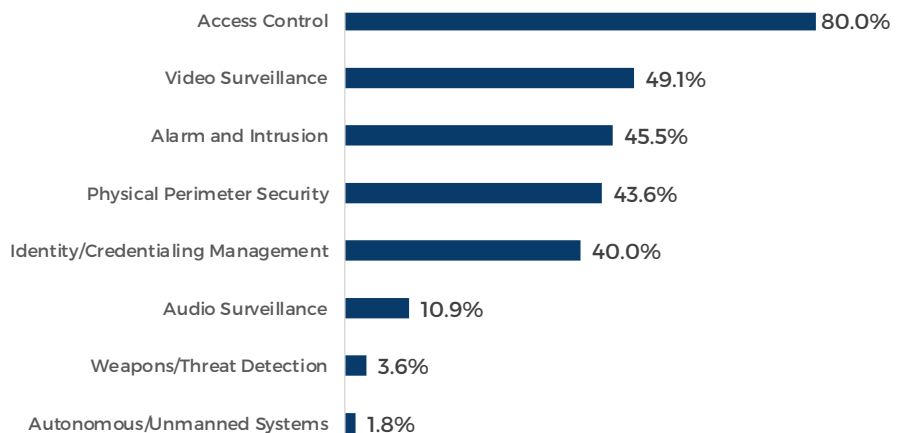
14 Key Survey Results and Insights



80%
access control
is the dominant
security solution
being deployed

#1 SURVEY INSIGHT

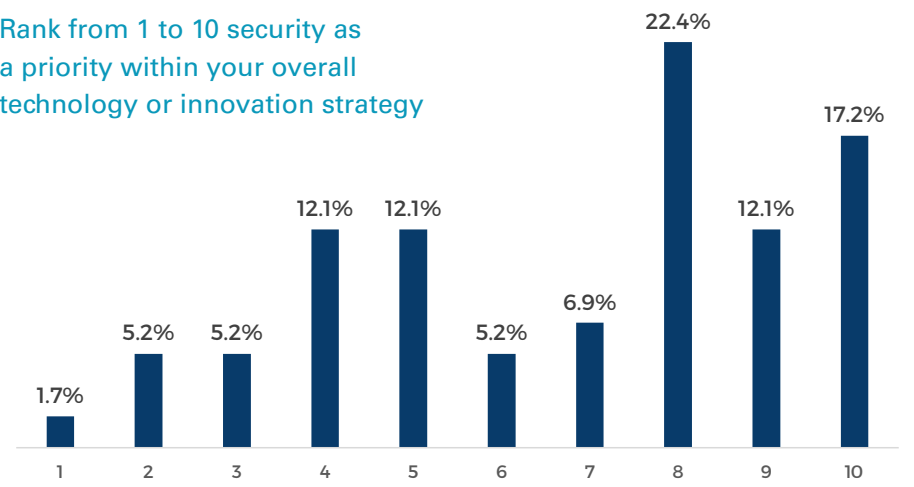
Access control was the dominant solution being deployed across 80% of respondents – almost double the next highest category of alarm intrusion at 43%. Which of the following security solution(s) are currently deployed across your portfolio?



#2 SURVEY INSIGHT

Roughly 60% of survey respondents ranked security at a priority of 7 or higher when considering technology or innovation strategy.

Rank from 1 to 10 security as a priority within your overall technology or innovation strategy

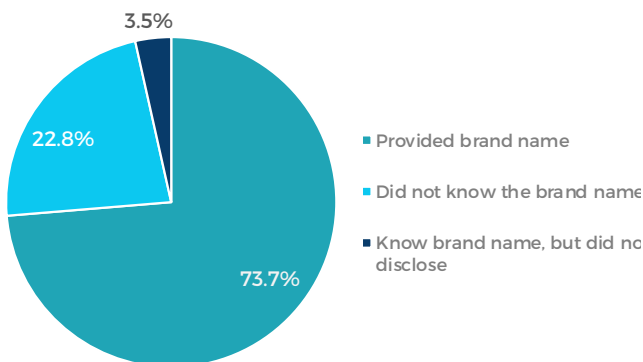


#3 SURVEY INSIGHT

22.8% deploy security solutions with no brand awareness with the remaining 77.2% respondents show a limited recognition of brand awareness.

22.8% of respondents acknowledged deploying systems but were not familiar with their specific brands. Approximately 3.5% of respondents were unwilling to disclose which brands their organizations deploy. No responses were received under the asset tracking and audio surveillance categories. The two most sparsely populated segments with respect to recognized brands deployed were the autonomous/unmanned systems category, and the physical perimeter security segment, with only one brand named in each category.

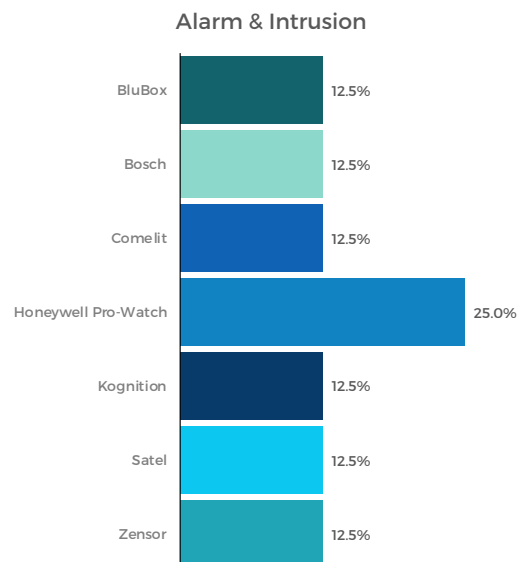
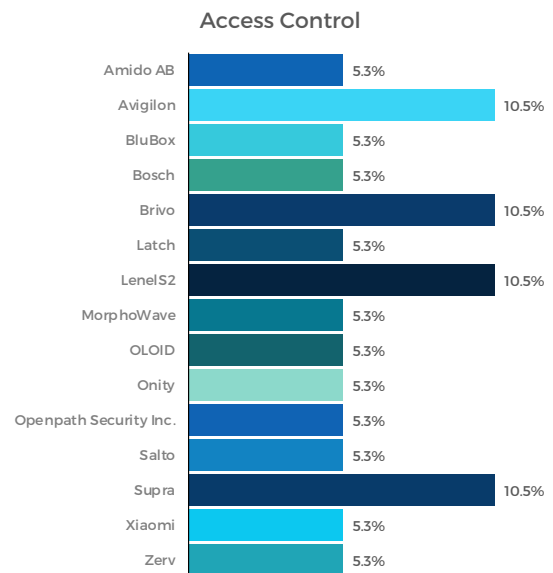
Are you aware of the brand of your deployed security system?



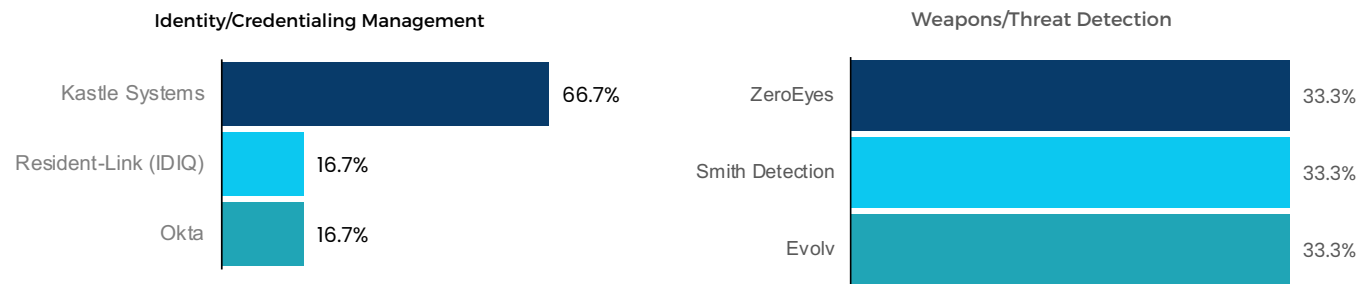
Tying up with earlier observations in respect of the most prevalent security solutions deployed, 27.9% of respondents referenced what Access Control brands are deployed.

10.5% is the even split among respondents who deploy Brivo, LenelS2, Supra and Avigilon Access Control Systems. The remainder is evenly split across various other brands at 5.3%. 25% of respondents deploy

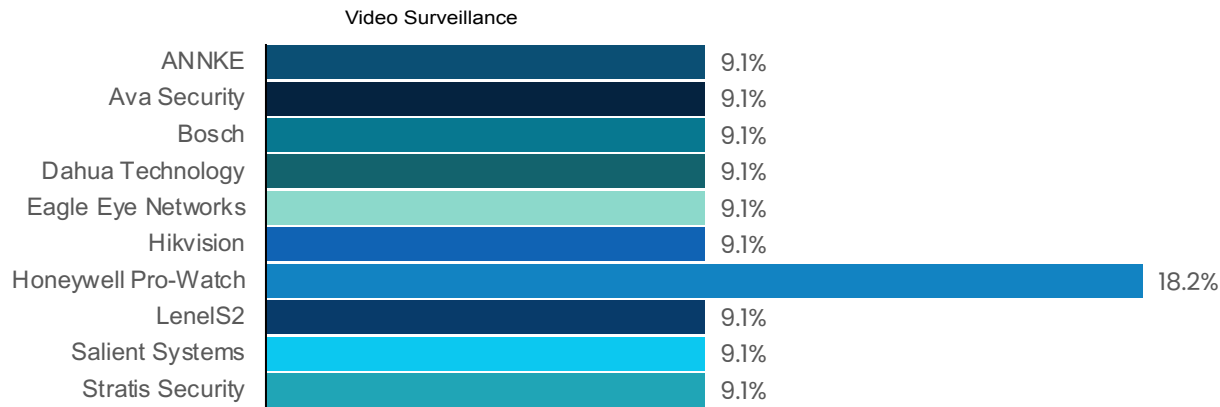
Honeywell's Pro-Watch system - the dominant brand deployed across the alarm and intrusion segment. The remainder is evenly split across various other brands at 12.5%.



66.7% of respondents deploy Kastle Systems, the dominant brand under the identity/credentialing management segment. 33% is the even split among respondents' brands deployed across the weapons/threat detection segment.



18.2% of video surveillance systems are Honeywell's Pro-Watch system, the dominant brand. The remainder is evenly split across various other brands at 9.1%.



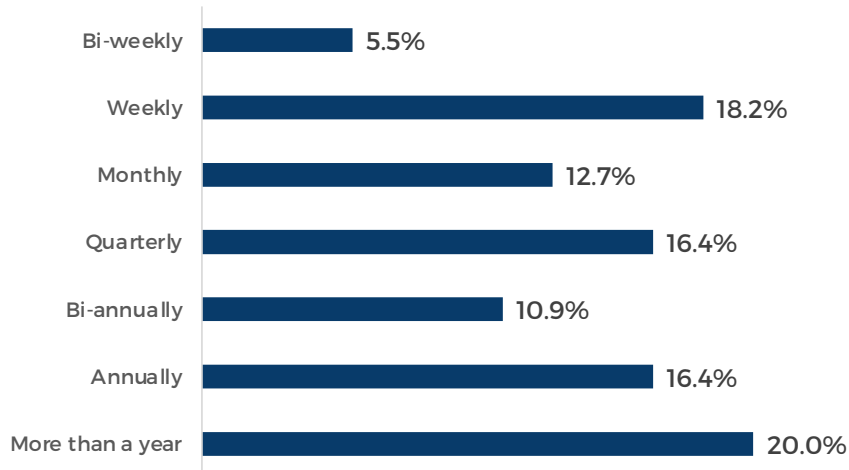
77.2%
of respondents
show a limited
recognition of brand
awareness.

#4 SURVEY INSIGHT

80% of respondents review and assess their security system more than once a year with 23.7% reviewing it on a weekly basis or more.

20% of respondents claim to assess their systems on more than a year or ad-hoc basis, while another 18.2% conduct weekly reviews. Considering that responses vary broadly, no clear, discernable patterns emerge from this.

[How often do you review and reassess your security system?](#)



#5 SURVEY INSIGHT

Only 17.2% of respondents rated their experience with interoperability as good and majority of respondents rated interoperability as fair.

37.9% of respondents, the majority by 15.5 percentage points, claim that their systems offer fair interoperability. Contrastingly, 17.2% of respondents rated the level of interoperability between different security solutions as good, the lowest percentage across responses to this question.

[Rate your experience with the level of interoperability between different security solutions?](#)

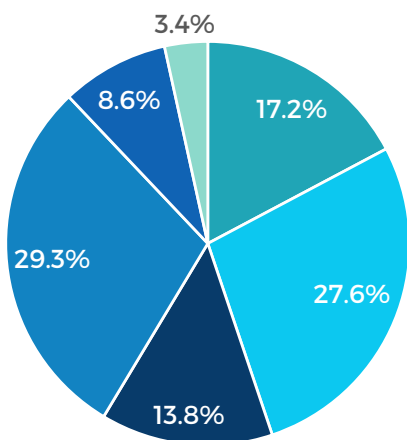


#6 SURVEY INSIGHT

Lack and integration and cost were evenly divided among a total of 56.9% of respondents' pain points.

29.3% cited lack of integration as one of the main challenges experienced with systems. This was closely trailed by cost barriers at 27.6%.

What is your most salient pain point with security solutions?



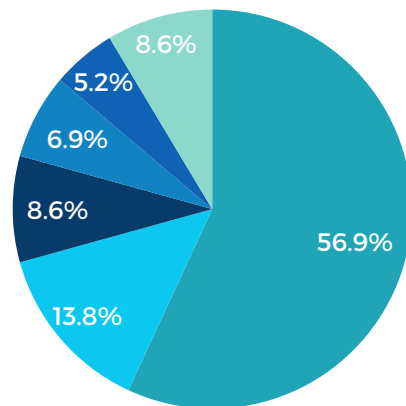
- Cost
- Lack of expertise to implement
- Lack of integration
- Unreliable
- Not applicable

#7 SURVEY INSIGHT

70.7% of respondents indicated either property/facilities management or their IT as the main users of security systems.

56.9% of typical system users are property/facilities management, the overwhelming majority. Heads of innovation/technology form the smallest percentage of system users, at just 5.2%.

Who within an organization interacts with the security solutions?



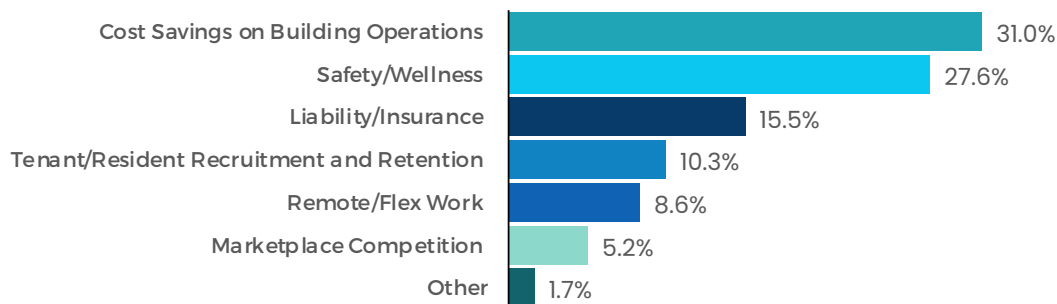
- Property/facilities management
- IT
- C-Suite Operations (CEO, COO, CFO)
- C-Suite Technology (CIO/CTO)
- Head of Innovation/Technology
- Other

#8 SURVEY INSIGHT

Cost savings rates as the most prevalent driver in deploying/considering security solutions over safety and wellness.

31% cited cost savings on building operations as the primary driver for deploying and/or considering security solutions. Trailing in second place at **27.6%** is safety and wellness.

What is the most prevalent driver in deploying/considering security solutions?

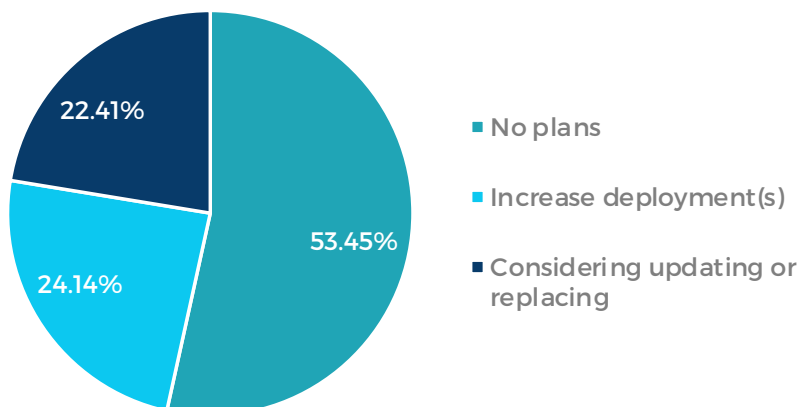


#9 SURVEY INSIGHT

79.4% of respondents indicated a plan to increase deployment(s) or replace current deployment(s).

55.2% of respondents claim that they have no near-term intentions for updating their security solutions. Fairly evenly split at **24.1%** and **22.4%** were respectively to increase deployments and consider replacing their current security solutions.

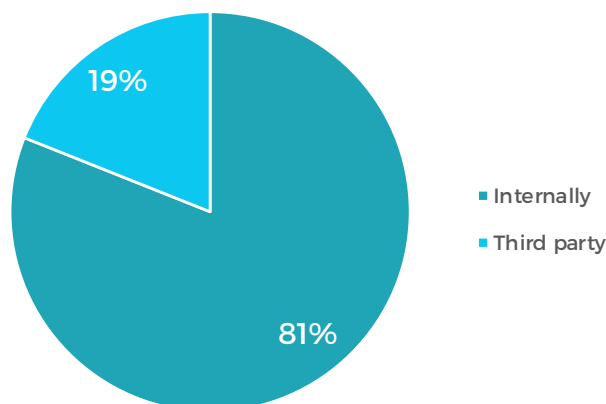
What is your near-term outlook for updating security solutions?



#10 SURVEY INSIGHT

Most of the decision making for security solutions are made internally by 81% compared to 19% being made by a third-party.

How are decisions made within your organization for security solutions?

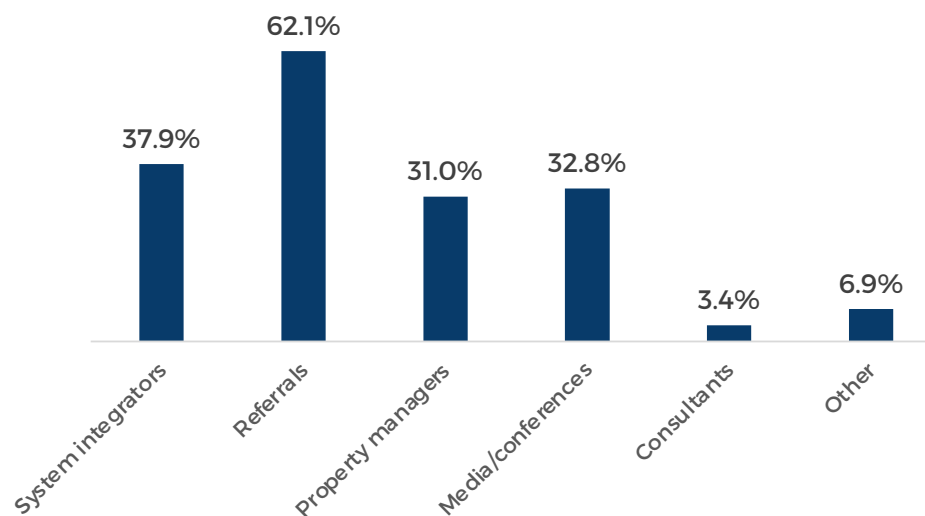


#11 SURVEY INSIGHT

62.1% of respondents sources their security solution information through referrals

62.1% of respondents, the majority, claim to source security solution information from referrals. The second most cited source at 37.9% was system integrators, with media/conferences not trailing far behind at 32.8%, and third-party property managers at 31%.

Who is your main source of information regarding security solutions?

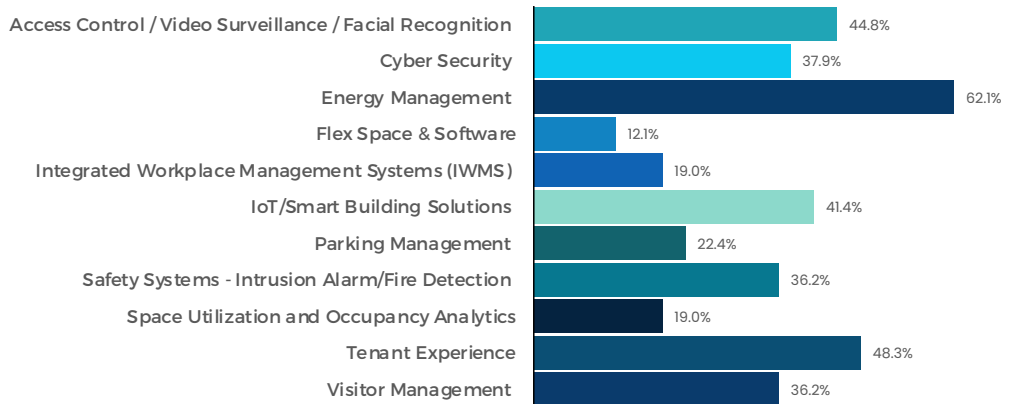


#12 SURVEY INSIGHT

Access control, video surveillance and facial recognition only make up 44.8% of a technology being deployed within respondents' portfolio(s).

62.1% cited energy management solutions as the most prevalent other type of technology solution deployed across real estate portfolios. Tenant experience solutions trailed in second place, at 48.3%, while flex space & software was the lowest deployed among the prescribed categories at 12.1%.

What type(s) of technology solutions are you deploying within your portfolio(s)?



#13 SURVEY INSIGHT

Energy management leads future consideration by a significant margin when compared to access control, video surveillance and facial recognition by 13.8%.

39.7% of respondents are considering energy management solutions for future use, aligning with the observations in the previous question. Trailing closely and tied in second place at 37.9% are three categories: (1) flex space and software; (2) IoT/smart building solutions and (3) tenant experience. Visitor management is the least cited for future consideration at 13.8%.

What type(s) of technology solutions are you considering within your portfolio(s)?

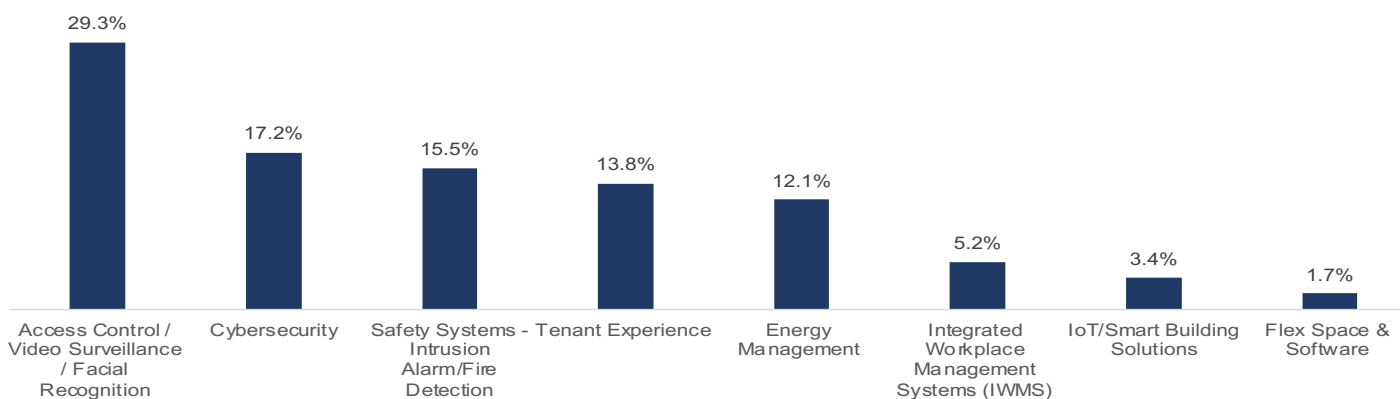


#14 SURVEY INSIGHT

Dispute a lower percentage of deployment, 29.3% of respondents, a majority, rank access control, video surveillance and facial recognition as most important

29.3% of respondents ranked access control, video surveillance and facial recognition among the most important building technology solutions, whilst both parking and visitor management were equally ranked as least important at 0%.

What type(s) of technology solution do you consider important?



29.3%
rank access control,
video surveillance
and facial
recognition as most
important



1:1 Interviews

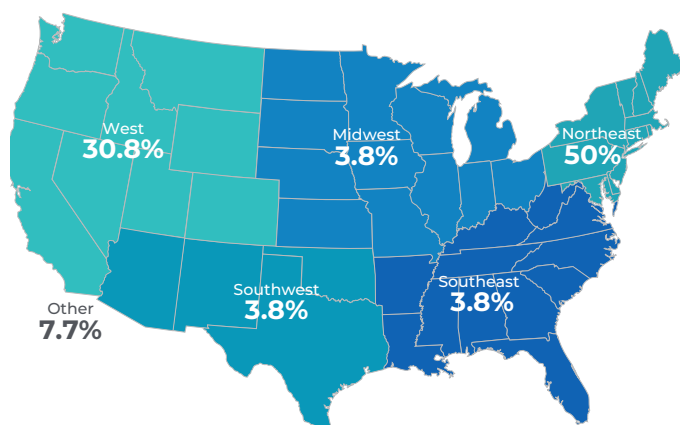
The one-on-one interviews were conducted with a highly curated list of the largest, most tech savvy commercial building landlords/occupiers and real estate owners to gauge market sentiment regarding trends in the security solutions marketplace.

Methodology

The interviews were conducted on a one-on-one basis with a highly curated list of the largest, most tech savvy commercial building landlords/occupiers and real estate service professionals to gauge market sentiment regarding trends in the security solutions marketplace. As such, while the interview respondent profiles spanned the same categories as those of the surveys, their composition was weighted towards real estate landlords/occupiers (53.8%) and REITs (11.5%).

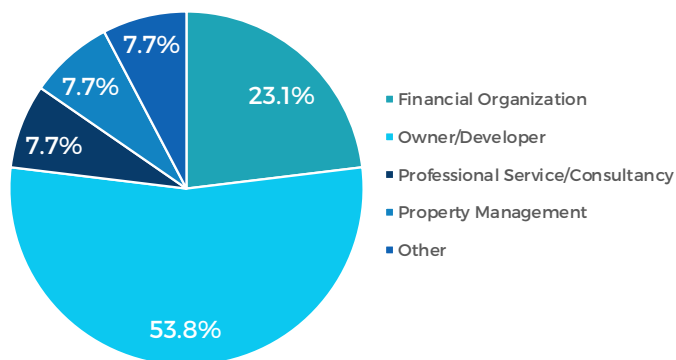
Demographics of Interview Respondents

Where are you located?

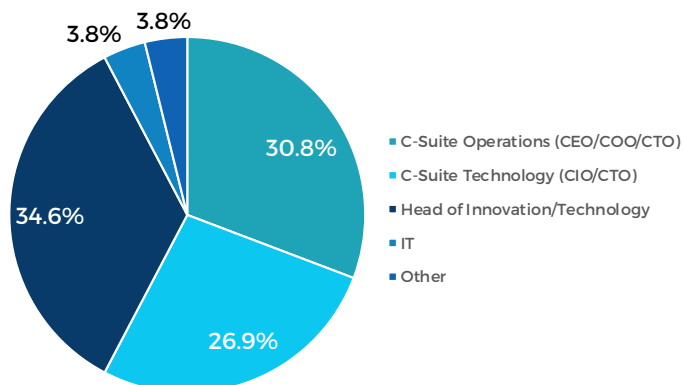


Notes: "Other" refers to survey respondents who do not reside in the United States

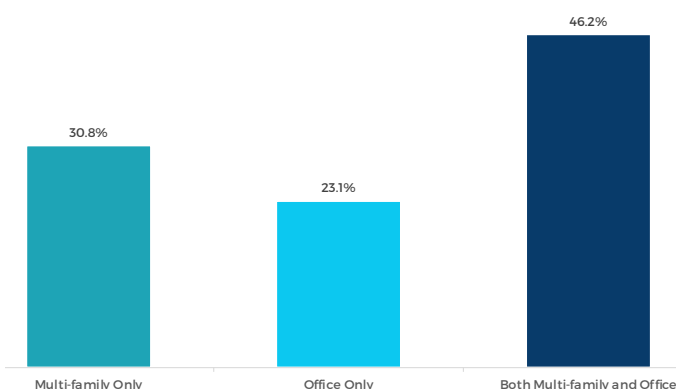
What type of organization do you work for?



What is your title at the organization you work for?



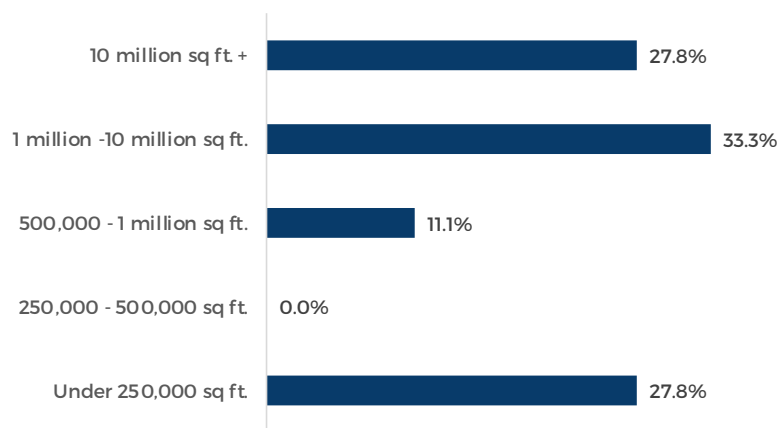
What vertical(s) do you operate in?



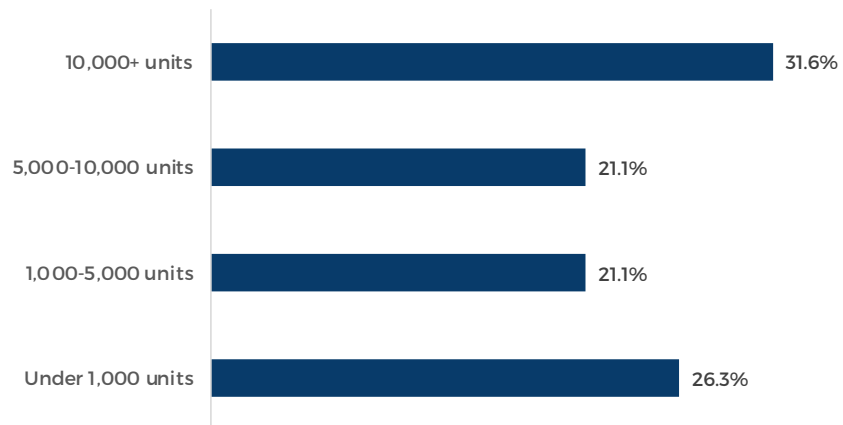


What is the size your portfolio?

Office Portfolio



Multi-Family Portfolio



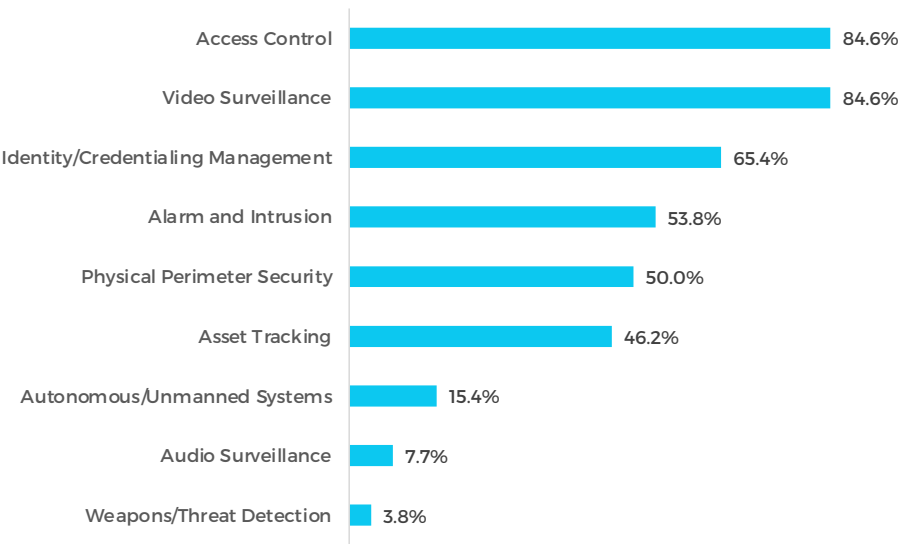
6 Key Interview Insights

#1 INTERVIEW INSIGHT

Access control and video surveillance are most deployed amongst the real estate sector giving plenty of growth opportunity for other security solutions.

84.6% cited access control and video surveillance equally as the most prominently deployed security solution across interviewees real estate portfolios. These surpassed the third highest category identity/credentialing management deployed at 65.4% of respondents. The least deployed category was weapons/threat detection at 3.8%.

What is the most prevalent security solution category deployed across your portfolio(s)?

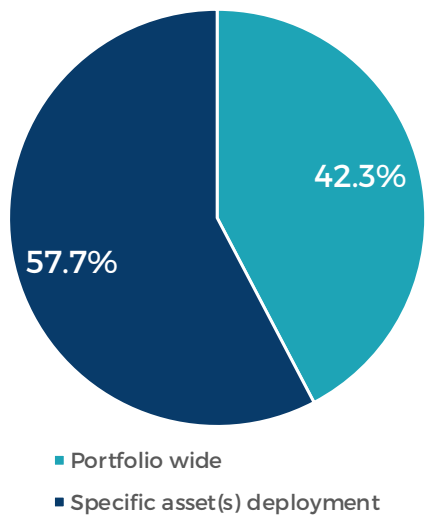


#2 INTERVIEW INSIGHT

A large portion of the market opportunity is deployment of solutions across portfolios compared to asset specific deployments.

Of the portfolio-wide security solutions deployment, the average portfolio size by square feet was 15,454,444. Similarly, by specific asset deployment, property sizes averaged 653,750 square feet, spanning 412 properties.

What extent of security solutions are deployed across your organization?



A deeper dive from interviews provided direct responses on consolidated deployment-related challenges, customers, and tenant feedback:

Costs

- Installation-related costs
- Compliance and capital costs
- ROI
- Budget, nationwide vendors
- Vendor management
- How to integrate solutions effectively and for reasonable cost

Market and technology

- Fragmented solutions in market
- Keeping up with changes and advancements, new technologies

Systems

- Centralized management
- System integrations
- Building access issues
- Systems are very closed and difficult to move from one to another
- Integrations with apps and tenant's systems
- Combining technologies under one network or platform
- Having one platform to monitor
- Security monitoring

Users, adoption and deployment

- Fairly successful with security deployment, but still not foolproof and pain points experienced from time to time
- User adoption
- Deployment challenges: COVID, social unrest (demonstrations)
- Proactiveness vs. reactivity for all things security
- Operational deployment (Do you need onsite security? Who will monitor the solution?)
- Safety of civilians not aware of the technology
- Managing events

Positive customer feedback

- Our customers are happy with our solutions
- Customers love it
- Positive feedback received from systems deployed, especially in office buildings
- Good to implement new security measures
- Increase in street crime has increased interest in discussion of security solutions

On the Commercial-Office side it is much easier for us as we have consolidated most components under a single vendor. On the Residential side while we are attempting to consolidate vendors, we are still in situations of supporting and working with different vendors by property based on decisions that were made when the buildings were constructed

Negative customer feedback

- Many lack integration between systems
- Challenging
- Tenant safety concerns
- We test for monitoring (we violate the systems ourselves) and often we do not get a call depending on provider

Customer recommendations

- Good technology exists, more work is needed to get it right
- Need more options for wide area coverage
- I feel that more SaaS is needed with much of this new technology

Positive tenant feedback

- Tenant feedback on access control solutions is positive (if it works well). Usually not much feedback on security unless something isn't working, there is an issue
- Happy with facial recognition and contactless entry

Mixed tenant feedback

- Mixed views by many
- Some appreciate systems, others have difficulties/ learning curves but appreciate new security platforms for buildings nonetheless

Tenant recommendations

- Open to adapt new methods
- Help to be more productive
- User experience is important when using building access controls. Mobile device compatibility is important
- Demanding more security protection from landlords and municipalities

Tenant privacy issues

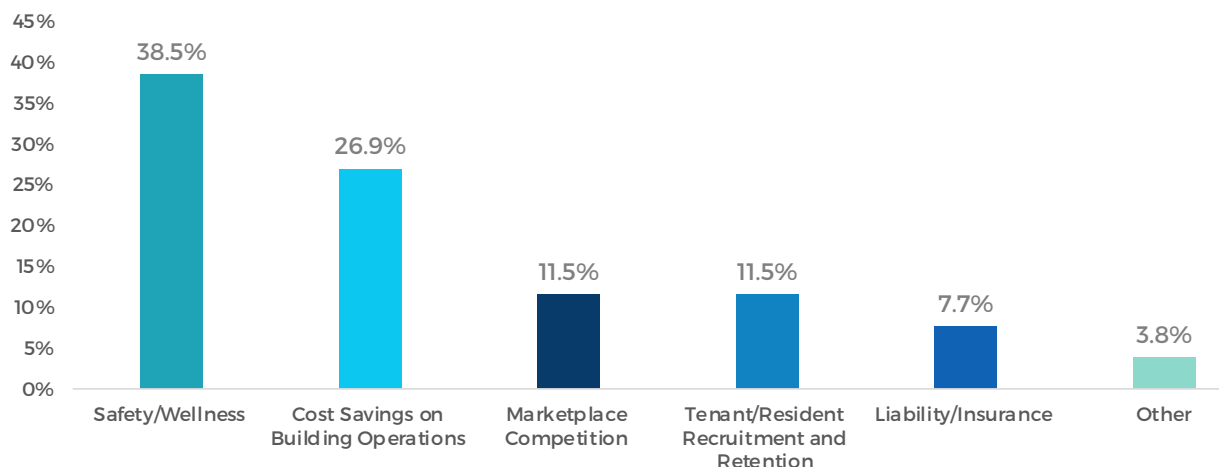
- How do you balance or approach "benefits vs privacy?"
- It can feel intrusive

#3 INTERVIEW INSIGHT

Traditional value propositions dominate security solutions with substantial growth from modern market trends.

38.5% of interviewees cited safety and wellness as the primary driver for deploying and/or considering security solutions. Trailing in second place at 26.9% was cost savings on building operations. These results contrast with the same question posed to survey respondents - in which a reciprocal relationship was observed: survey respondents cited cost savings on building operations as the primary driver, whereas safety and wellness trailed in second place. Remote or flex work was not a consideration.

What is the most prevalent driver in deploying/considering security solutions?

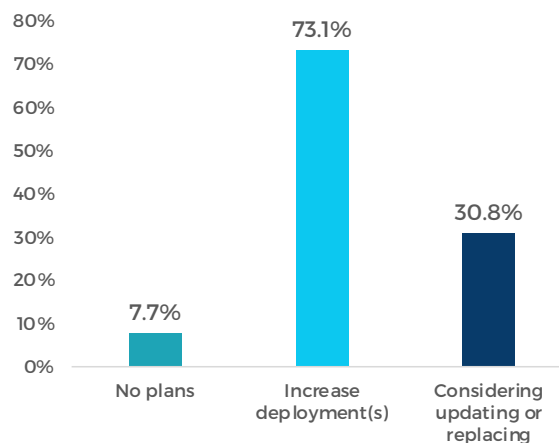


#4 INTERVIEW INSIGHT

Traditional value propositions dominate security solutions with substantial growth from modern market trends.

73.1% cited increasing deployments in accordance with their organization's security solutions strategies. This far exceeds the consideration of replacing current technology solutions at 30.8%, and even more so in comparison to no plans, at just 7.7%. This too contrasts heavily relative to the same question posed to survey respondents, whereby 55.2% cited no plans, and only 24.2% had some intentions of ramping up their deployments.

What is your near-term outlook for updating security solutions?

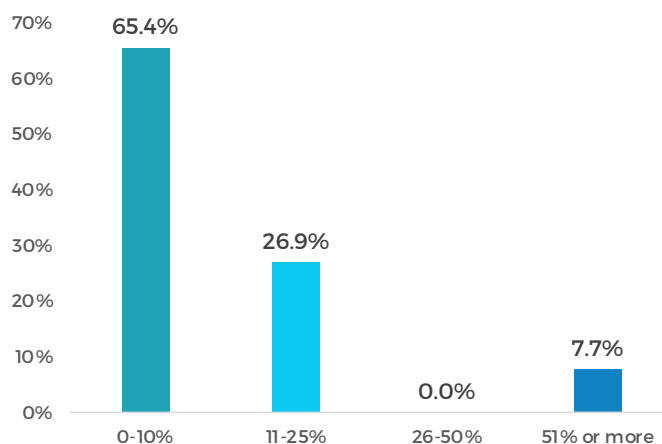


#5 INTERVIEW INSIGHT

Budgets continue to be relatively low but encouraging feedback on growth opportunities if industry responds accordingly.

65.4% of interviewees allocated 0-10% of their total technology investments to security solutions, followed by 26.9% within the 11-25% allocation range, while 7.7% allocated only 51% or more.

What % of your total tech investment is allocated to security solutions?

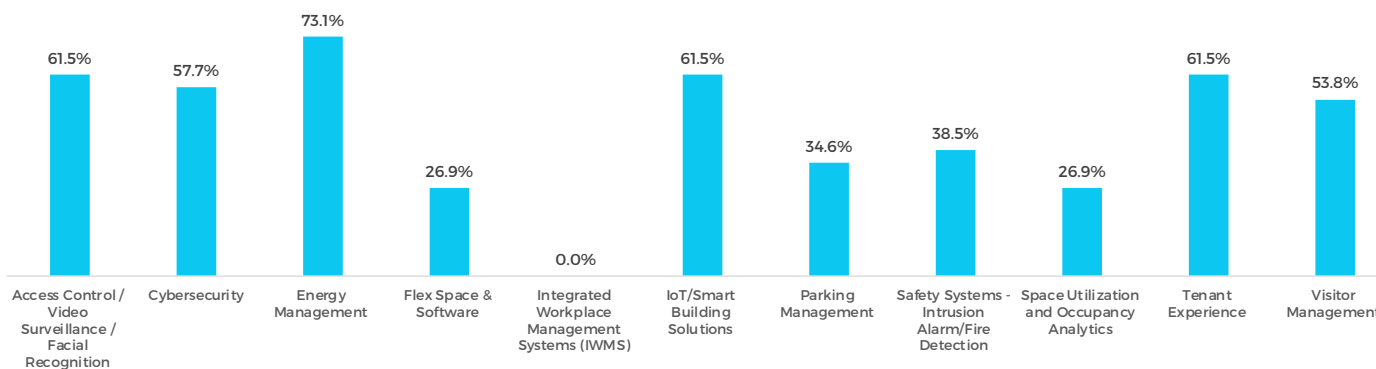


#6 INTERVIEW INSIGHT

Demand for alternative or additional value creation along with security solutions is very strong.

73.1% cited energy management solutions as other building technology solutions deployed, while the second most deployed solutions tied across three categories at 62.1% - (1) access control, video surveillance and facial recognition; (2) IoT/smart building solutions; and (3) tenant experience. Integrated workplace management systems (IWMS) were the least deployed category at 0%.

What type(s) of technology solutions are you deploying within your portfolio(s)?



Quotes from Global Real Estate Leaders

Views on the current state of the security solution sector

"It's frustrating to try to adapt methodologies and best practices developed in other industries for use in CRE."

Senior Director, Technology

"Hard to justify ROI at times"

Director of Technology & Innovation

"Still feels like early days, with likelihood of further leader shake-out down the road. Have not implemented a "latch" type solution yet, as mass adoption is still slow coming in multifamily."

CFO

"Security solutions today work in silos from other solutions in the building. Integration is not trivial."

CTO

"I think the area is ripe for consolidation or for the right team to disrupt the space by providing a RE-focused security stack offering a full-suite of services that could also be licensed a la carte."

EVP, Technology & Information Strategy

"Good technology available, growing field, needs better integration"

EVP, CIO

"Improvements are measurable, however companies need non-proprietary technology in nature and to contribute towards total solutions that can manage change and improvement over time."

Director, Facilities Management



"The security solutions sector has not been widely accepted by all real estate companies but continues to gain traction as owners/managers can use these products to enhance their real estate portfolios."

COO

"Practicality and localization to fit market needs. Challenge on after-sales support. ROI and user experience are two of the most important factors."

Head, Group ICT & Digital Transformation

"Our company is excited to see the increase in technology innovation in the security solutions space which includes tenant experience."

Executive Director of IT

"Emerging market for intelligent endpoint camera networks, challenges of public perception around surveillance remains a challenge, both ongoing street crime growth demands expansion of security networks."

CEO

"I feel the enhancements have come a long way in the last 2-3 years."

CTO

How could the security solution sector do a better job meeting your company's needs in the future?

"A standardized framework, much like what the RECC is creating, is needed and security vendors need to eat, breath, and live it."

Senior Director, Technology

"Simple consumer experience"

CIO

"More investment, increased security measures such as biometrics"

CFO

"Holistic solutions with more integrations between platforms. IoT is a mess³. Need to bring more IEEE standards to the industry."

Director, Building Operations

"Listen to the customer request and problem and don't create a problem that your solution will work for."

CTO

"Individual solutions are not lacking. What is lacking is optionality in partners that have a good comprehension of the different parts of the space."

EVP, Technology & Information Strategy

"Security solutions are very expensive, and a security company could gain a large market share if it were made more affordable."

COO

"Need more competitive pricing models, especially with rise of competitive landscape. Features - mobile security systems for gaining entry/access are a very important segment. Need to make tenants feel safe, and hospitable relationship between tenant/landlord is critical. Same applies to multifamily segment. Tenants tending to choose buildings with greater security tech over those without."

CIO

"A smart and sustainable solution, interoperability with others solution is essential."

Head, Group ICT & Digital Transformation

"Standardize protocols and equipment across disparate providers."

Executive Director of IT

"Public-facing advanced solutions must be demonstrated to gain public confidence in security network deployments."

CEO

"One-stop-shop should come about."

CIO

³The Internet of Things (IoT) is defined as the network of physical objects, or "things," containing embedded software, sensors, and other technologies capable of connecting to and exchanging data with other devices and systems via the internet ("What is IoT?," Oracle).

Security solutions predicted to grow in importance

"Access control via cell phone and facial recognition"

EVP, Director of Innovation & Community Impact

"More growth in energy management is expected."

CFO

"Access control is clearly a trend."

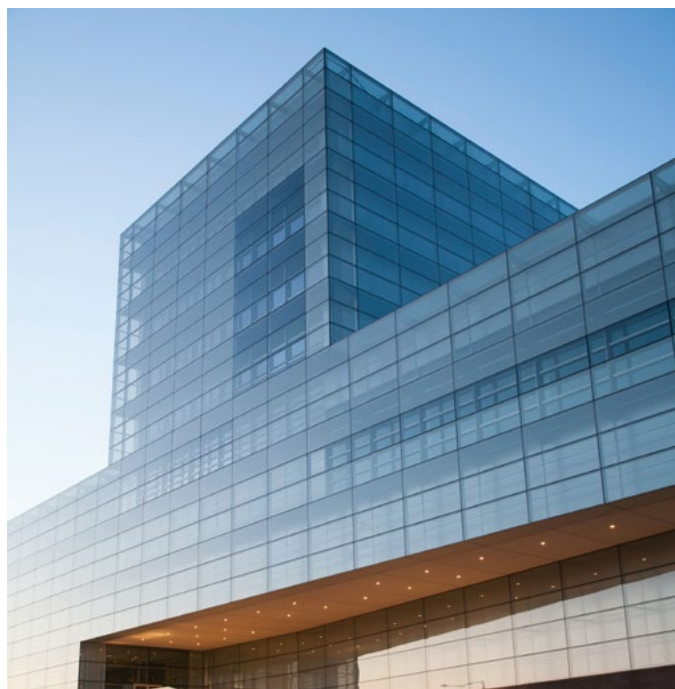
Director, Global Innovation

"Identity management solutions that can integrate with multiple systems"

CTO

"Cybersecurity, access control, tenant experience, and video surveillance. I believe the residential market will benefit the most with advancements as the need for physical security diminishes over time."

EVP, Technology & Information Strategy



"Facial recognition will likely gain more traction.

Robotics and drones will likely also gain traction in the industrial market."

Senior Director

"Workplace comfort and convenience to further transform user experience"

Director

"I see office and multi-family be the largest user of security solutions."

CIO

"Visitor management, thanks to food/parcel delivery becoming the norm"

Head, Group ICT & Digital Transformation

"Access controls and digital workplace experience using mobility"

Executive Director of IT

"Intelligent end point networks connected to private security, public safety/police and social services through a security operations center are key support systems for existing security services."

CEO

"Security systems that are really effective and integrated with other systems we use like Yardi"

COO

Security Categories Market Analysis

The market research section sets out to address the report's key research questions, namely:

- What are the market barriers and drivers for security solutions as part of proptech?
- Which vertical markets have the most growth potential?

To address these questions, this section reviews the commercial real estate industry's market dynamics, including drivers and barriers within the office and multifamily verticals, as well as the respective total addressable market sizes in the United States for the following solution categories :

- | | |
|-----------------------------|--------------------------------------|
| 1. Access control | 5. Video surveillance |
| 2. Alarm and Intrusion | 6. Audio surveillance |
| 3. Asset tracking | 7. Identity/credentialing management |
| 4. Weapons/threat detection | 8. Perimeter security |

Methodology

Market analysis was conducted by sourcing independent market research and leveraging several reputable data sources. The solutions investigated included access control; alarm and intrusion; asset tracking; weapons/threat detection; video surveillance; audio surveillance; identity/credentialing management; and physical perimeter security.

Commercial Real Estate Market Dynamics

The commercial real estate and multifamily market have enjoyed significant growth over the past few years. The question on everyone's mind is, "given the current market conditions, will it continue?" The short answer is, "No, but this too shall pass."

The current commercial real estate market is in the midst of turbulent times. The foreseeable future is somewhat unknown with the way people work changing, economic uneasiness, and rising interest rates. Many

experts believe major markets like New York and San Francisco have a looming crash. It may not be like the 2008 market crash, but many expect the market to reset with the most pressure on older and unfavorable office space. That said, the commercial real estate sector has shown resiliency and the ability to bounce back.

The multifamily market has experienced strong demand throughout 2022 due to advantageous demographical and socio-economic, a housing shortage, and strong job growth with rising wages. As a result, the multifamily market is expected to grow in 2023 and beyond, albeit slower than in the past five years.

It is important to note that the commercial and multifamily market varies by geographic region, so you will find markets, such as the Sunbelt region, which will continue to see strong growth and demand. It is also important to note that considerable growth is expected in the retrofit

⁴Research sources: Markets and Markets; independent CREtech research and analysis, including review of various news sources and research reports.

market versus new construction, even within the commercial and multifamily market.

As a commercial and multifamily market utility, the security sector is expected to continue to be in high demand. There will be headwinds, but innovations, the need for upgrades, and competitive pressures will help deliver an above-average growth rate.

Market Drivers

- **Tenant demand**

Tenant recommendations, as observed in the survey and 1:1 interviews reveal that tenants are demanding more security protection from both landlords and municipalities. In a similar vein, 73% of landlords interviewed cited increasing security solutions deployments in the future.

- **New construction/renovation plans**

Decarbonizing the built environment will spur demand for retrofit related renovations, as observations indicate that energy management solutions are taking priority across real estate portfolio deployment (nearly two-thirds deploy across real estate portfolios, while 40% are considering for the future)

- **Changing workplace culture**

A fundamental shift to a tenant experience mindset, largely spurred by the COVID-19 pandemic, has been conducive to market demand in respect of direct workplace and adjacent industry solutions, many of which overlap with security solutions, for example access control. This is further supported by security solutions predicted to grow in importance according to anonymous leading global landlords which referenced quotes “access controls and digital workplace experience using mobility” and “workplace comfort and convenience to further transform user experience.”

- **Consolidation in proptech industry creates opportunities**

It is a well-documented fact that the proptech market is saturated with acute, point solutions, almost negating the need for technology in the first place. As integration issues across the market are a major pain point (about one-third of respondents), market consolidation is anticipated to act as a catalyst in consolidating the fragmented landscape

- **Adoption by leading commercial real estate companies**

According to an Urban Land Institute (ULI) and Goodwin survey, proptech adoption by leading commercial landlords is growing but still slow. The adoption trend is expected to ratchet up over next 3 years, with companies pursuing multiple strategies, i.e., direct investment in startups, venture investment and scaling in-house tech resources. Nevertheless, the other market drivers listed will all also induce higher adoption rates.

Market Barriers

- **Lack of integration amongst tech solutions**

On par with costs, building owners surveyed cited integration issues as one of their main pain points, at 28% and 29%, respectively

- **Lack of clear ROIs**

Similar to integration issues cited as a main pain point experienced with systems, ROI, as a function of costs, were conveyed directly by both sets of survey and interview respondents as a challenge, especially when considering asset specific vs. portfolio-wide deployments. Moreover, ROI caveats were also referenced in the anonymous ‘Quotes from Global Real Estate Leaders’ as “Hard to justify at times” and “ROI and user experience are two of the most important factors”

- **Lack of specific budgets for tech investments**

65% of interviewees allocate between 0-10% of their total tech investments towards security solutions.

- **Lack of personnel to vet and onboard solutions**

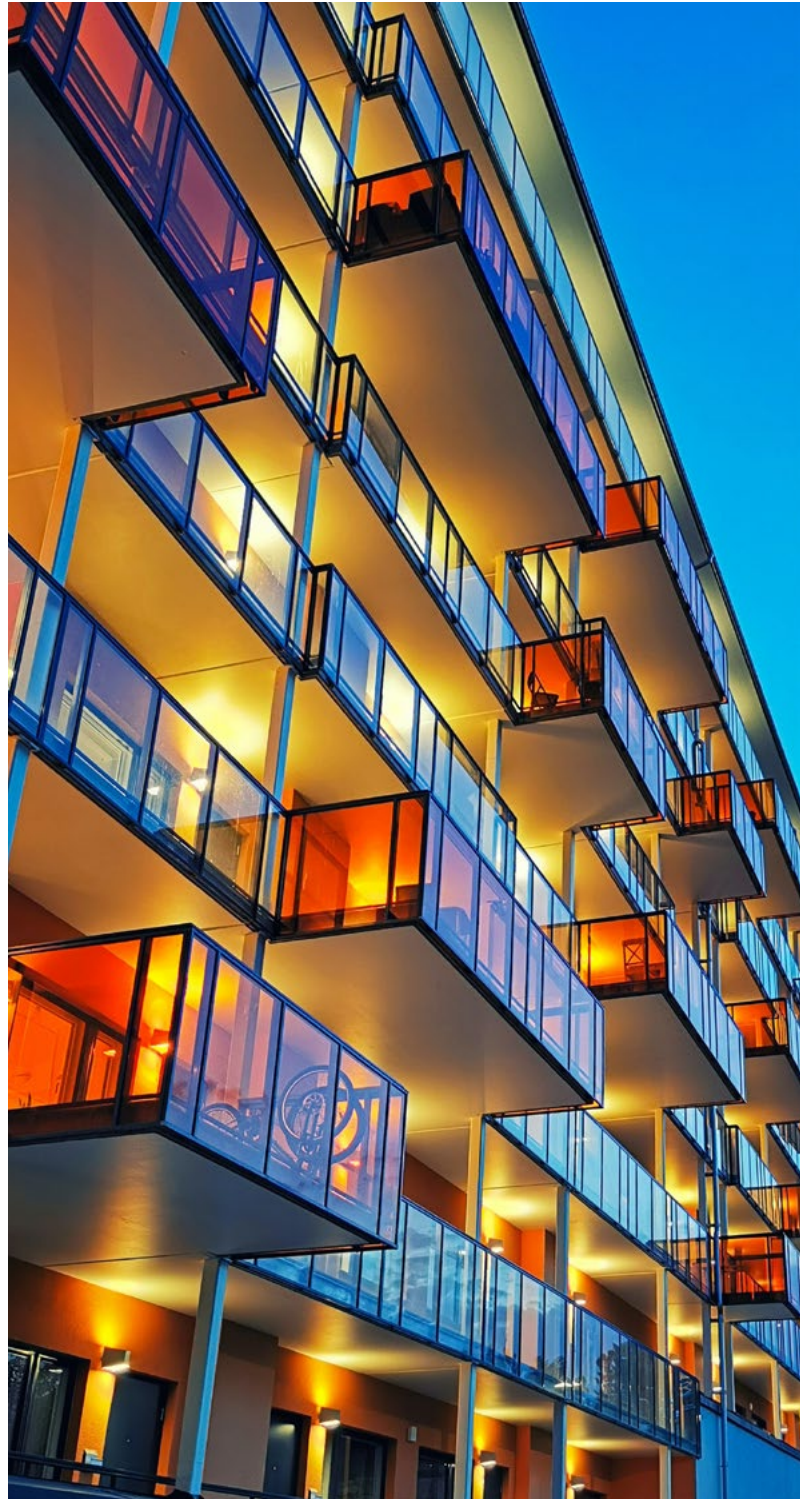
Historically, commercial real estate has under invested in technology. One of the reasons is due to the lack of skilled professionals and resources to examine and qualify solutions. This is compounded by the fact that the industry is fragmented and encompasses thousands of point solution startups, most of which are siloed and don't integrate amongst each other.

- **General lack of appetite for technology risks**

Despite being one of the largest industries in the United States, commercial real estate invests the least in research and development. Other industries invest 5 to 10 percent on average into research and development compared to commercial real estate, which allocates less than 1 percent.

- **Energy management solutions taking priority**

Nearly two-thirds deploy energy management solutions across real estate portfolios, while 40% are considering it was a priority for the future



Solution Categories Analysis

1. Access Control

The access control market in the United States grew 9.8% year-on-year (YOY) from a value of \$1.9 billion in 2021 and is valued at \$2.1 billion in 2022. The total addressable market is estimated to reach \$3 billion by 2026, growing at a CAGR of 9.6% during the forecast period (2021-2026).

2. Alarm and Intrusion

The alarm and intrusion market in the United States grew 10.4% YOY from a value of \$17.1 billion in 2021 and is valued at \$18.9 billion in 2022. The total addressable market is estimated to reach \$20.6 billion by 2023, growing at a CAGR of 4.9%.

3. Asset Tracking

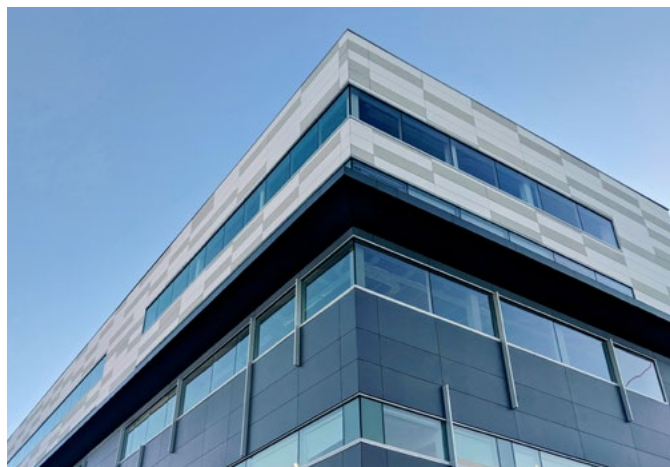
The asset tracking market in the United States grew 18.4% YOY from a value of \$0.8 billion in 2021 and is valued at \$1 billion in 2022. The total addressable market is estimated to reach \$1.5 billion by 2027, growing at a CAGR of 9.5% during the forecast period (2022–2027).

4. Weapons/Threat Detection

The weapons/threat detection market in the United States grew 9.1% YOY from a value of \$27.8 billion in 2021 and is valued at \$30.4 billion in 2022. The market experienced a CAGR of 11.06% over the most recent forecast period (2016–2022).

5. Video Surveillance

The video surveillance market in the United States grew 8.8% YOY from a value of \$12.2 billion in 2021 and is valued at \$13.3 billion in 2022. The total addressable market is estimated to reach \$23.3 billion by 2027, growing at a CAGR of 13% during the forecast period (2022–2027).



6. Audio Surveillance

The audio surveillance market in the United States grew 14.1% YOY from a value of \$554 million in 2021 and is valued at \$632 million in 2022. The total addressable market is estimated to reach \$1.1 billion by 2025, growing at a CAGR of 17.2% during the forecast period (2020-2025).

7. Identity/Credentialing Management

The identity/credentialing management market in the United States grew 13.8% YOY from a value of \$211 million in 2021 and is valued at \$240 million in 2022. The total addressable market is estimated to reach \$352 million by 2025, growing at a CAGR of 13.6% during the forecast period (2020-2025).

8. Physical Perimeter Security

The physical perimeter security market in the United States grew 7.9% YOY from a value of \$16.8 billion in 2021 and is valued at \$18.1 billion in 2022. The total addressable market is estimated to reach \$23.4 billion by 2026, growing at a CAGR of 7.4% during the forecast period (2020-2026).

Conclusions

Major takeaways, observations and opportunities

This brand-new report from SIA's Proptech Advisory Board evaluated proptech trends, market sizes and purchasing decisions within the security solutions sector as it relates to office and multi-family real estate. The culmination of findings from the surveys, interviews and independent market research conducted confirms that:

1. Cost is top of mind for building owners. This can be seen by the 27.6% of survey respondents identifying cost as a pain point (second to lack of integration with only a 1.7% difference), and 31% of survey respondents identifying cost savings as a driver. This was corroborated by interviewees who lack specific budgets for technology investments (65.4% allocate between 0-10% of their total tech investments towards security solutions), while justifying the ROI was similarly conveyed as a challenge when considering asset-specific vs. portfolio-wide deployments.
2. Energy management solutions are another emerging trend and appear to be taking priority over other types of building technology solutions deployed across real estate portfolios (nearly two-thirds of respondents were adopting such solutions), while 40% are considering energy management solutions for the future. As such, the security solutions industry needs to consider how to capitalize on the rising environmental, social and governance (ESG) trend.
3. Brand recognition is dominated by two factors: (1) those that call on the verticals directly, and (2) the interface/product/software that is used by the respondent. All that said, a large portion (22%) have no brand affiliation at all and could not answer what name brand they use. While this presents an opportunity, it also underscores the relatively dismal state of brand recognition for such an important product category (ranked 6.8 out of 10), particularly for a product category that is reviewed often (79.3% of respondents reviewed their solutions more than once a year), and one that is in almost every building (as an example, access control is deployed in 80% of those surveyed and even more, 85% by from the one-to-one interviews).
4. 81% of decisions are made internally (compared to third party), and 62% of respondents claim to source security solution information from referrals (compared to 38% from systems integrators). Considering that most of the security solution industry goes through a channel and uses specifiers, companies need to reach the commercial real estate internally.
5. 83% of responses believe that the current levels of interoperability between different security solutions is either fair (38%), poor (22%) or doesn't exist (22%). Similarly, integrations are cited as a pain point (about one-third of respondents). The industry needs to do a better job on both fronts, as customers want and are demanding change.
6. Overall, opportunity abounds. From the one-to-one interviews with developers, owners and operators, 73% cited increasing deployments in accordance with their organization's security solutions strategies. This far exceeds the consideration of replacing current technology solutions at 31%, and even more so in comparison to those with no plans, at just 8%.
7. Considering the combination of 21% weekly security solution system reviews/assessments, an opportunity for the industry, and the respondents saying that the majority of how they get information is by



referral – brand and GTM matter in this market. What is traditionally a channel and specifier only industry, those that are looking to target this market need to have a business development, sales, and marketing effort from the manufacturer to drive adoption. The data does not insinuate “go direct,” but rather in “addition to” with a focus on “top of the funnel” efforts, and that building brand awareness matters.

8. Access control is the most prevalent security solution deployed (80% of survey respondents), albeit the commercial real estate industry sees whoever manages their cards and mobile credentials as an “identity/credentialing management” provider (for example, a single vendor comprised two-thirds of survey responses). This vendor, however, is fully integrated and goes direct to market, whereas most security solutions go via a channel.

In conclusion, our research reveals the enormous upside potential for the security industry within the commercial real estate sector. However, for it to truly reach this scale it will require technology providers to truly understand and adapt to the unique adoption challenges this massive industry presents.





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