



Smart Tech for Multifamily Properties: Understanding ROI

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Multifamily properties are increasingly investing in smart building solutions to improve operations, reduce costs, and better attract and retain tenants. However, understanding the potential impact of investments in smart technology is difficult. Companies oftentimes invest in pilot projects before largescale rollouts but have little opportunity to evaluate pilot results against industry averages. There is an industry-wide need for benchmarking, to better gauge the outcomes of smart building deployments.

This white paper shares findings from Parks Associates' interviews of multifamily owners, operators, and property managers across the US market. It offers specific insights into how companies are tracking and evaluating the return on investment and impact to net operating income (NOI) provided by smart building deployments, provides metrics and results that companies have shared, and lays out strategies for benchmarking effectiveness.

Study Methodology

This research draws on the results of 10 interviews with leading multifamily owners, operators, and management companies across the United States, representing a diverse mix of company sizes, building types, and geographies across the US market.

These interviews delved into companies' use of operational technologies such as access control systems, smart thermostats, and water leak detection; key drivers and use cases; and the results of these deployments.

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Smart Building for Multifamily Properties

Multifamily properties are increasingly investing in smart building solutions across their portfolios. The benefits they seek are diverse: attracting and retaining desired residents, staying competitive with nearby peers, reducing operating costs, improving staff efficiency, reducing the risk of adverse events, and even resolving operational challenges.

For property developers, smart building technologies increasingly mean a greater NOI at the time of sale. In addition to the benefits outlined above, there are larger industry-wide initiatives occurring that require smart building systems to run effectively, such as centralized leasing and self-guided tours.

Financial ROI and NOI are key metrics multifamily owners, operators, and property managers use to track the effectiveness of smart building solutions. However, given the complexities and realities of the data tracking required to measure these impacts, directly evaluating monetary ROI is a challenging prospect for many companies. Taking a closer look at the operational impact of smart building technologies can provide a method of measuring the overall effectiveness and return of smart building deployments. In cases where ROI cannot be measured directly, these additional metrics provide an alternative method of gaining insight into the impact of smart building deployments.

Companies that have deployed smart building technologies oftentimes use pilot projects to gauge their effectiveness and to troubleshoot potential issues before wider rollouts.

This white paper shares the results of companies' long-term operational rollouts.

Key Metrics for Evaluating Smart Building Solutions	Participant Results
Smart Door Locks & Electronic Access Control Systems <ul style="list-style-type: none"> • Time Spent on Maintenance Requests • Work Orders Completed Per Day • Number of Door and Lock Replacements • Reduction in Labor Expenses 	20% efficiency boost 10% fewer maintenance requests 3% reduction to CAPEX budget \$80K per building per year
Water Leak Detectors and Smart Water Meters <ul style="list-style-type: none"> • Gallons of Water Saved • Reduction in Number of Water Leaks Across Portfolio 	25%+ savings in old construction ~\$12-35K per incident savings
Smart Thermostats <ul style="list-style-type: none"> • Reduction in Energy Cost in Vacant Units & Common Areas • Reduction in Number of Burst Pipes Across Portfolio 	18-20% cost savings \$2K-\$700K per incident savings
Self-Guided Tours <ul style="list-style-type: none"> • Increase in Close Rates 	10-15% increase in close rates
Cellular Intercoms and Gate Controllers <ul style="list-style-type: none"> • Service Cost of Cellular vs. Telephone (POTS) 	75% reduction in cost with cellular





ROI for Industry Initiatives

Study participants reported a variety of ROI and NOI results from their various smart building initiatives. Results were highly positive, with some caveats – for the true benefits of smart building deployments to be realized, solutions must be integrated into larger platforms. That is, smart building technologies work best when incorporated into other solutions such as resident apps, building management systems, smart building platforms, and/or the property management system. Modern solutions, taking advantage of years of additional development and learnings to include features such as automated resident turnover, presence detection, low battery warnings, and others, also resulted in greater ROI and improved NOI compared to solutions without these features.

Electronic Access Control and Smart Door Locks

Electronic access control systems are increasingly commonplace across the multifamily housing market. These systems, unlike a mechanical lock and key system, use electronics and digital networks to control access, commonly including control points such as base building doors and gates to the parking lot or garage. They may additionally include buzzer boxes or intercoms and, increasingly, smart door locks on residential units.

Smart door locks on residential units provide MDUs with a number of direct and indirect cost savings and additional functionalities. Participants reported dramatic efficiency boosts by their maintenance teams as well as direct savings from no longer needing to replace doors and locks. They were able to add new self-guided tour functionality, increasing close rates for residential units. These benefits relied on integration into larger systems and platforms, including maintenance work order systems, resident-facing apps, and leasing platforms. Integration with the property management system (PMS) also allowed for automated resident turnover procedures, so that staff don't need to manually reprogram locks during the turnover process. Features such as low battery warnings and automatic work order generation prevented possible issues such as resident lock-out.

Participants reported a 20% efficiency boost for maintenance staff by not needing to pull keys, a 3% reduction in the CAPEX operational budget due to not needing to replace doors and locks.

Participants found that even in the same community, residential units with self-guided tour functionality had between a 10-15% higher close rate than units without.



“[We calculate the ROI of smart locks] by looking at work orders... Our guys are paid \$28-37 an hour, and that’s their hourly rate alone... You [also] get better resident responses, better resident satisfaction and reviews, and higher retention rates at renewal times. The industry standard for work orders is 10-12 work orders per day per tech. [We] increased it to 15. This is where your savings are coming from.”

– **National Director of Maintenance and Field Services**, Leading Property Management Firm



“In an average property, we get maintenance requests from 10% of our units per week. I would say that every service request, we save 10 minutes by not having maintenance pull keys and instead pull from an access device. Take the unit count, by time saved, by employees... [The main benefit is that] service requests are done faster, you have happier residents, residents pay more rent.”

– **Sr. Regional Manager**, Leading REIT



“[Self-guided tours] increased closings on units 10-15%. It removed the obstacle of being able to view it, gave the renter or applicant more of an opportunity to look online, do a self-tour, and make a decision.”

– **Investor Relations Specialist, Regional Owner/Operator**, Southeast US

Electronic access control systems that incorporate a gate or door controller to the base building or parking lot allow properties to reduce labor expenses and headcount, moving away from needing to support night shifts for concierge or doormen or eliminating the need for these roles entirely on select properties. Modern access control systems also support greater accountability through their record-keeping and audit trails, ensuring a higher degree of legal compliance and reducing liability. Participants with these systems also report reduced package theft, an additional benefit for residents.



“We didn’t see the point in [having concierge at] some small properties, where the apartment count was low and one shift added to operating expenses. We spent \$500,000 to implement [access control]... We also implemented [package lockers], opened with our access control. People picked up their own packages, shared their own keys with guests. We eliminated two shifts each day. In two years, it paid for itself. The rest of the savings are in NOI.”

“In New York City, you cannot hold someone’s key out in concierge without locking it. You need to trace [the key] – if someone gets into an apartment, you need to be able to say who took the key and gave it to them. This legal portion was a big driving factor for us – once you implement a smart lock, it’s residents and guests managing this whole process.”

– **Director of Facilities Services**, Top 10 REIT

Cellular intercoms and gate controllers are offering a dramatic cost benefit to properties across the United States. Many multifamily properties are facing an immediate crisis in the retirement of plain old telephone service (POTS) lines, which have historically been used to operate existing buzzer and intercom solutions and enable access control functionality. In various regions of the United States the price to operate these existing access control solutions has grown between 4-8x – costing companies potentially hundreds of thousands of dollars per month across their footprints.

Installing cellular intercoms and gate controllers provides an immediate ROI for companies impacted by the sunsetting of legacy telephone service – potentially cutting monthly costs by 75% or more.

Some POTS providers are also terminating service entirely, causing immediate operational challenges for MDUs that rely on this service for their access control. Companies are evaluating options, including upgrading their legacy equipment and transitioning to cellular connectivity where possible.



“A few years ago, the FCC released pricing constraints [for copper lines]. The price went through the roof. Our average price went from \$50 per line to \$200 plus per line overnight. So there’s a project going on – switch to cellular, go from \$800 per month [per site] to \$40 per month. We’re doing this for doorphones, gates, those types of controls... We did have a vendor cut off service... just got out of the business. That’s our fear, that someone else does this.”

– VP of Information Technology, Leading Affordable Housing Developer and Owner

Smart Water Meters and Water Leak Detectors

There are several types of water leak detection solutions being adopted by properties today. These solutions fall into two broad categories – smart water meters and separate water leak detection devices that act as sensors. The impact of these solutions can vary widely, depending on the age of the building and the potential threat posed by water leaks. Study participants reported the highest returns in portfolios including older properties – built before 2000 – and high-rise buildings.

Participants report a large variability in returns for water leak detection solutions. Older properties averaged a 20-25% reduction in gallons of water used, while the impact in new construction was negligible.

Older properties are the most likely to have water leaks, with slow or unnoticed seeping from plumbing or running of toilet fixtures resulting in high water consumption and gradual damages from rot and mold.



“The leak sensors are [where we’ve seen] the most significant gain... we have had 452 work orders from leaks. We’re self-insured – this is the real benefit for us... an HVAC unit can leak for months and go undetected. It’s in a closet, usually in the master bedroom. The resident doesn’t have a key, only we have a key. Then we get a call from the resident saying their carpet is wet, and this usually means the water has gone that same distance vertically as well. If this is on the third floor or higher this can be a \$35,000 loss per incidence. We usually have 1,000 incidents per year. 452 work orders, [we’ve seen] millions in savings, right to net operating income.”

– Vice President of Facilities, Multifamily REIT

“The first year, we saw a 25% decrease in gallons used, because we were able to address issues immediately instead of waiting thirty days to see if there was a leak... We were calling out plumbers and different people all the time. Toilets running, it helped us pinpoint that issue immediately. Toilets use a surprising amount of water, and residents can get sticker shocked by it. [Water leak detection] decreased water usage, and helped increase resident satisfaction.”

– Investor Relations Specialist, Regional Owner/Operator, Southeast US

In addition to overall water savings, there are potentially significant savings preventing water damage across portfolios. One study participant, with a portfolio of low-rise to mid-rise buildings of varying ages, reported that in just the first year of deploying water leak detectors, his company generated 452 leak-related work orders and prevented an estimated \$35K in damages per incident across the 29 assets where leak detectors are currently deployed.

Within high-rise buildings, water leak detection systems paired with automatic shut-off valves have the potential to save hundreds of thousands or even millions of dollars in damages in a single asset. Within this type of property, burst pipes and similar adverse events can impact upwards of sixty or more units – causing widespread damage to the building and to residents’ belongings. Automatic shut-off valves minimize this damage, while the detection systems mobilize property staff for a rapid response.



The impact on insurance premiums was mixed. Properties with a history of water leaks experienced easier negotiations with insurers. For newer properties and properties without a history of leaks, water leak detection solutions were occasionally required by insurers and/or helped to mitigate the effects of rate hikes. However, many multifamily companies are moving to larger deductibles per property, with \$100K deductibles increasingly common. With relatively few leaks exceeding \$100K in damages, this means that properties must increasingly bear the cost of water leaks themselves. For these properties, the ability to reduce damages from multiple smaller leaks has powerful cost savings and a direct impact on NOI.

Smart Thermostats and Smart Heating

While many companies see smart thermostats as primarily an amenity for residents, this technology offers a number of operational and cost-savings benefits. Smart thermostat solutions integrated into building management systems allow authorized personnel to automatically set temperature ranges, enabling property staff to control temperatures more easily in vacant units and in common areas. This provides a return on investment in the form of both labor and energy savings.

Participants report saving 18-20% of energy costs with a deployment into common areas and vacant units. More advanced deployments incorporating time-of-use programs experienced still higher savings, with a 20-30% reduction in annual expenses and 20-30% reduction in energy use. Payback periods were between six months and two years.

“[We’re looking for] well-integrated smart home solution(s) that can straddle demand response on the whole property level, but also work well for residents. Able to properly partition between resident privacy and promote meaningful access to valuable data for building performance, gaining insights, and predictive maintenance needs.”

– **Managing Director of Sustainability**, Leading Multifamily Investor and Developer

“In one year, we produced over \$500K in savings in utility consumption over 15 properties.”

– **Director of Facilities Services**, Top 10 REIT

In select markets, such as New York City, properties additionally pay to heat their residents’ units during the winter. They may additionally cover electric, sewage, water, and gas. In these situations, smart thermostats paired with boiler controls and time-of-use electrical plans offer significant savings to properties. Beyond direct utility savings, energy-savings initiatives help companies meet Environmental Sustainability Goals (ESG) initiatives, marrying sustainability with a powerful business case that resonates with investors.



Depending on property location, smart thermostats can also play a key role in disaster prevention. There are many garden-style properties in the southern United States and other areas where sustained below-freezing temperatures are dangerous to plumbing running alongside the outer walls of residential units – with these freezes oftentimes causing burst pipes during winter months. Smart thermostats can protect both occupied and vacant units, through low temperature alerts tied to work order systems. In cases where residents may leave for vacation in the winter, turning the heating off or forgetting an open window, property staff are able to identify and correct heating issues before disaster strikes.

For vacant units, maintenance or other staff will often proactively set the thermostats to a suitable temperature to prevent pipes bursting. In such a deployment scenario, smart thermostats save valuable staff time while also ensuring that no residential units are accidentally missed.

Smart Apartment Amenities

Smart apartment amenity packages are increasingly expected by residents, especially those living in Class A luxury buildings. These solutions are additionally expanding to serve more market segments, with growing penetration into Class B and Class C housing. In more competitive markets and for select demographics, these amenities may be necessary for prospective residents to consider renting at all.

Return on investment for smart apartment amenities varies. In select markets, these amenities may be necessary for residents to consider renting at all. In others, they may result in lifts to rent ranging from 5-10%. These solutions commonly have a three year payback period.

Parks Associates surveys of MDU residents find that 39% consider property-provided smart home devices a key differentiator when looking for their next home.

The exact contents of smart apartment amenity packages vary, but smart thermostats are a highly popular component. Other components include solutions such as smart lighting controls, video doorbells, and smart appliances – which can offer their own efficiencies. Rent is only one way of measuring smart apartment amenity effectiveness.



“The typical structure of smart home, you pay \$800 to \$1,000 per unit, and then you pay \$4-9 per month for the program... We charge \$20-25 per month to residents.”

– EVP of Asset Management, Leading Multifamily Investor and Developer

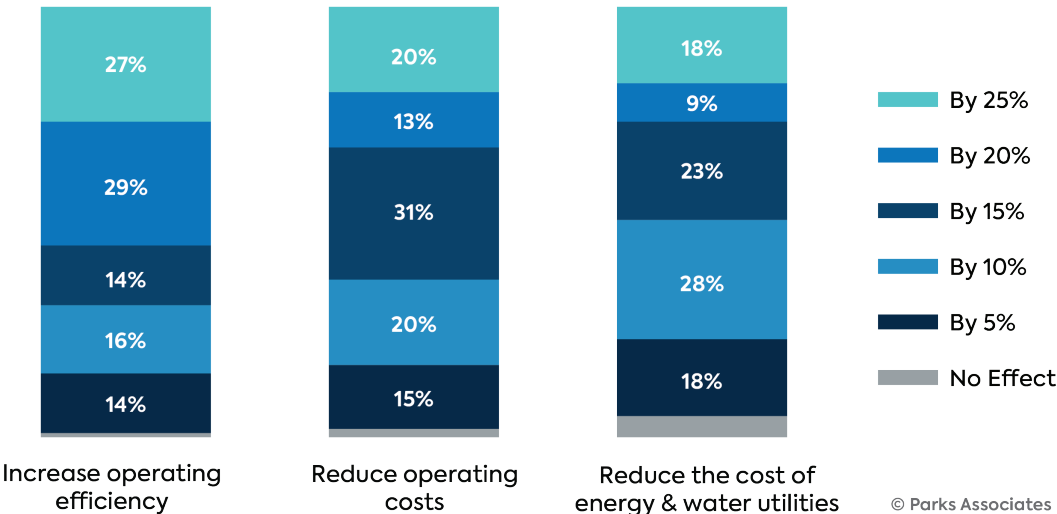




Deploying the Right Solution to the Right Environment

Smart building technologies offer many benefits to property owners, operators, and managers. These benefits range from the financial, to the operational, to the qualitative. Parks Associates’ past survey of MDU owners, operators, and managers finds that the vast majority of those that have already deployed smart building solutions expect benefits from these solutions – through results such as increased operating efficiencies, to reducing operating costs, to directly reducing the cost of utilities.

Expected Benefits of Smart Building Deployments Among MDU Owners/Operators/Managers with Smart Building Deployments



Multifamily owners, operators, and property managers experience the highest returns when the right solution is deployed to the right environment. Modern solutions integrated into property management systems, building management systems, or resident apps offer many advantages compared to standalone point-solutions, avoiding the challenges of fragmentation and enhancing ease-of-use.

About Parks Associates



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Parks Associates, a woman-founded and certified business, is an internationally recognized market research and consulting company specializing in emerging consumer technology products and services. Founded in 1986, Parks Associates creates research capital for companies ranging from Fortune 500 to small start-ups through market reports, primary studies, consumer research, custom research, workshops, executive conferences, and annual service subscriptions.

About SKBM



www.skbmsmarttech.com

Since 2018, SKBM Smart Technology has been revolutionizing the multifamily housing experience through cutting-edge property technology (PropTech) solutions. Today we are the industry's PropTech Concierge delivering comprehensive proptech solutions that elevate efficiency, security, and profitability for property owners and managers. SKBM takes the time to understand your goals, and then curates the ideal PropTech package to maximize your return on investment.

At the core of SKBM's offerings is a comprehensive suite of smart apartment technologies, access control systems, video monitoring, SmartHome integrations, and leak detection solutions. This combination gives multifamily communities intelligent, connected environments that streamline operations and provide modern conveniences for residents. During the consultation process, SKBM determines what the property's needs really are. And then builds a solution that is fully integrated or one that can be added onto over time.

Once the right tech stack is chosen, SKBM's white-glove installation team takes over. Our in-house team of skilled technicians ensures seamless implementation tailored to each client's unique needs, whether for retrofits or new construction projects.

With an unmatched track record of connecting over 450,000 multifamily units with access control, WiFi deployments and more, SKBM has the proven experience to know what works and what doesn't based on property goals. This success is driven by a deep understanding of multifamily and a commitment to delivering tangible value, such as:

- Optimized Operational Efficiency
- Enhanced Resident Satisfaction
- Robust Security and Access Management
- Reduced Costs and Maximized ROI

SKBM takes pride in forming long-term partnerships with multifamily clients, providing friendly and transparent service from consultation through implementation and beyond. Their forward-thinking approach continually explores new technologies to stay ahead of market demands – and make sure our customers have full access to the latest and greatest technology.

To start modernizing your multifamily community, contact SKBM SmartTech today.

About the Author



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Kristen Hanich heads Parks Associates' consumer electronics and mobility research, with expertise in other verticals including connected cars, mobile networking, healthcare, wellness, and independent living. She leads a mix of custom and syndicated research projects throughout the year, with a focus on major players and emerging trends. Kristen specializes in bridging the gap between data-driven and narrative approaches to understanding the consumer markets via a mix of qualitative and quantitative research approaches.

ATTRIBUTION

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RESEARCH & ANALYSIS

for Emerging Consumer Technologies

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