TECHNOLOGY IN APARTMENT LIVING
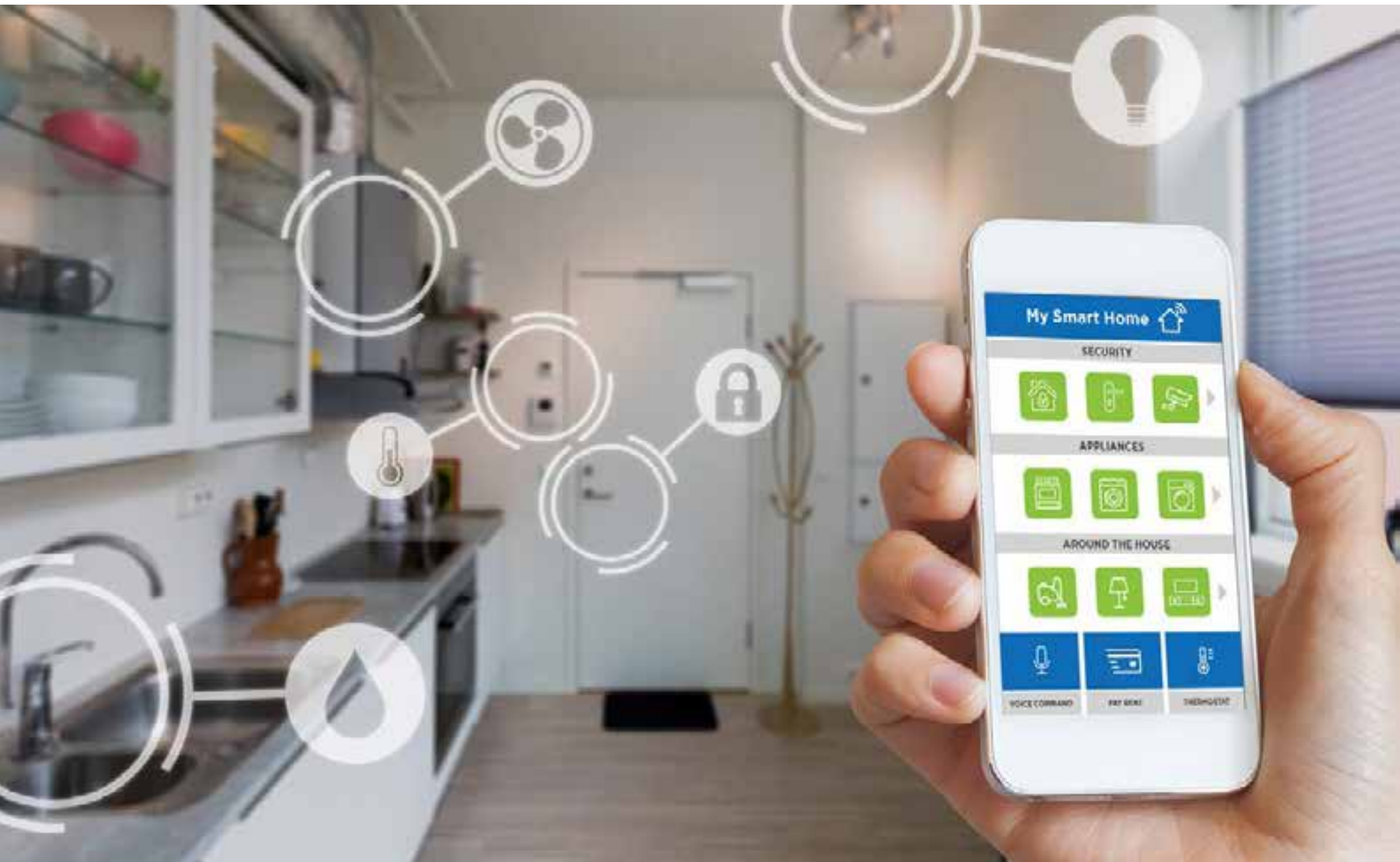## Are we as smart as we think?

Technology in Apartment Living

Are we as smart as we think?

CONTENTS

NAA
NATIONAL APARTMENT ASSOCIATION

Maintenance Supply Headquarters®

During the latter half of 2016, the National Apartment Association (NAA) conducted a nationwide amenity survey[1]. Apartment community owners and operators were supplied with a list of 43 amenities and asked which ones they had upgraded or added during the previous two years. Of these amenities, five could be described as "smart" and even those might be subject to debate today: High-speed internet, community-wide Wi-Fi, alarm systems, energy efficient appliances and the catch-all "smart-home devices." Only energy efficient appliances made the top 10 for most popular unit amenities. Smart-home devices placed 18 out of 22 unit-specific amenities.

But how much has changed since then? Perhaps the most glaring transformation is how many of those amenities are now touched by technology. Package holding areas placed in the top 10 for community-wide amenities, but it would be quite a stretch to label them "smart" back in 2016. And who needs a grocery store on the premises when you can use an app to get your groceries delivered to the cold-storage lockers in your community?

Advances in technology are a challenge to keep up with, our members told us in a recent survey about smart-home technology. An inherent challenge of smart homes seems to lie in its very definition, which means different things to different people. Back in 2016, Coldwell Banker Real Estate and CNET announced their official definition: "A home that is equipped with network-connected products (aka "smart products," connected via Wi-Fi, Bluetooth or similar protocols) for controlling, automating and optimizing functions such as temperature, lighting, security, safety or entertainment, either remotely by a phone, tablet, computer or a separate system

within the home itself."[2] Suppliers to the apartment industry generally include the Internet of Things (IoT) in what they consider smart-home tech. Regardless of the actual definition, apartment residents agree that it makes their lives more efficient. NAA surveyed apartment owners and residents to find out what role smart-home tech plays in their communities.

The common thread in our owner and resident survey results was clear: There is enormous growth potential in the smart-home industry.

OWNERS are Testing the Waters

Three out of five owners and operators surveyed classified their smart-home initiatives as basic at this point. Sixty-two percent of those are focused on technologies benefitting individual units such as smart thermostats, smart locks, lighting, and the ability to pay rent online. The remainder focused on basic features at the property level such as motion-sensing lighting, resident portals and smart fitness equipment. Thirty-one percent of survey respondents have no smart-home initiatives in their communities to date, while just 8 percent could be considered advanced in terms of integrating systems within properties and with property management software.

When asked about digital assistant providers, 18 percent of respondents have partnered up, mainly with Google and Amazon, while Samsung is a distant third. Of the 61 percent who are not partnering with digital assistant companies, more than one-third plan to within the next two years. Moving beyond digital assistants, we found that 37 percent have partnered with a smart-home technology platform provider, with Entrata, Dwelo and Vivint the most popular. **Fifty-two percent are planning to partner with such companies during the next two years.**

The number one motivating factor for implementing smart-home initiatives was clear: **To attract and retain residents.** Operational efficiencies and cost savings placed second and third, respectively, while simply doing it for ancillary revenue was less important.

Forty-seven percent price smart-home tech into the rent while 22 percent price them as separate fees. Nearly one in five do not charge for a basic smart-home package. Write-in responses included a hybrid of all or some of the above, variable charges by community and whether the focus is the apartment or the entire community. Others price out the feature based on potential ROI after making the initial investment.

WHAT SMART-HOME INITIATIVES ARE **OWNERS** PLANNING IN 2019/2020?

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Continuing to roll out initiatives in selected markets and integrating into a newly defined platform

"

Main motivation for implementing smart-home technology (RANKING)
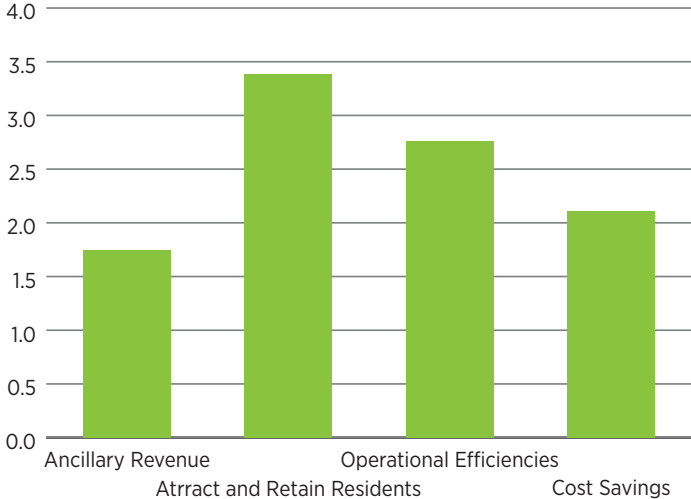
Note: Survey Monkey ranking responses are weighted such that the respondent's most preferred choice (which they rank as #1) has the largest weight, and their least preferred choice (which they rank in the last position) has a weight of 1.

OWNER SURVEY
How do you structure costs for smart-home technology? (PERCENTAGE)
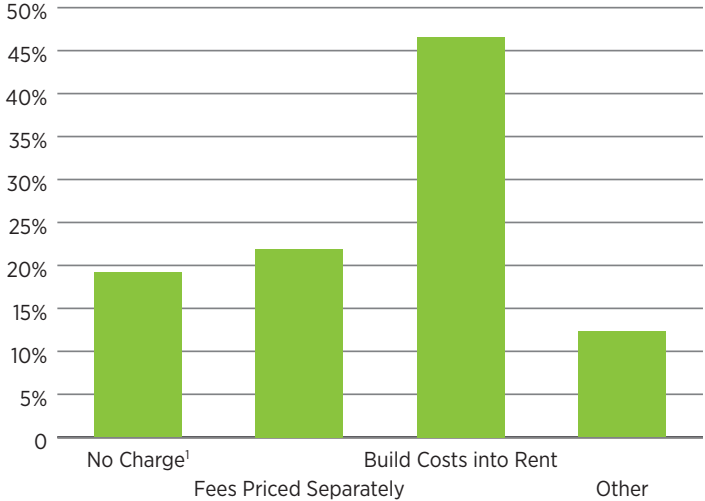
[1.] No charge for basic package. Additional fees for upgrade .

TECHNOLOGY IN APARTMENT LIVING

4

Owners were asked to rank seven factors which have the greatest impact on their smart-home technology initiatives. Costs to implement were viewed as a major impediment, followed by incompatible technology and choosing the right technology that won't be outdated in the near-term. In fact, more than 41 percent of survey respondents ranked "future-proofing" in the top two of seven challenges with smart-home technology.

"

Plans to be developed in conjunction with 2020 budget cycle

"

In trying to determine how smart-home tech affects the bottom line, we asked whether cost savings had been achieved because of smart-home implementation. Responses were fairly evenly split among yes, no and unsure. About **32 percent said they experienced either energy or operational cost savings,** most of which was estimated at up to 10 percent annually.

Fifty-four percent of owners and operators are planning to ramp up smart-home initiatives. While only 11 percent have training programs for maintenance technicians related to the technology, 29 percent are considering them. **Of those planning smart-home initiatives in 2019 and 2020, 46 percent of responses indicate a roll-out in select communities while another 28 percent will be seeking out partnerships** to help them in this process. Seventeen percent will move from basic to more advanced by integrating smart-home tech with their property management software.

OWNER SURVEY

## The biggest challenge to your smart-home initiatives to date (RANK)
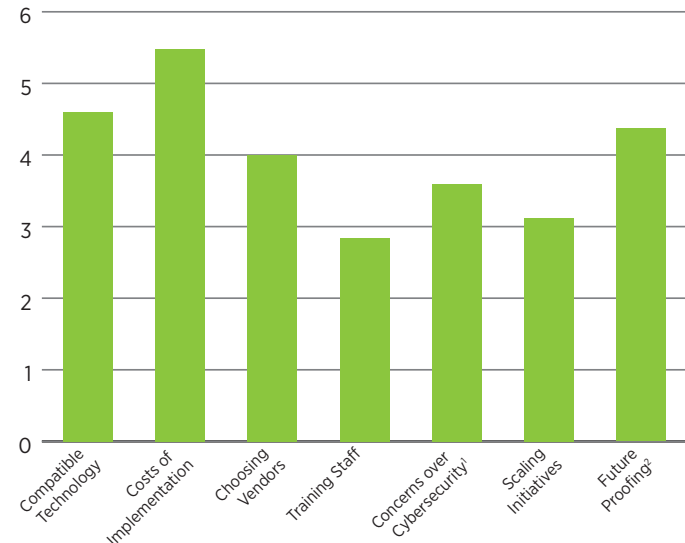
Note: Survey Monkey ranking responses are weighted such that the respondent's most preferred choice (which they rank as #1) has the largest weight, and their least preferred choice (which they rank in the last position) has a weight of 1.

[1] Including Privacy Rules and Regulations
[2] i.e. Choosing the right technology that won't be outdated

OWNER SURVEY

Which of the following are you planning in 2019/2020 (PERCENTAGE)
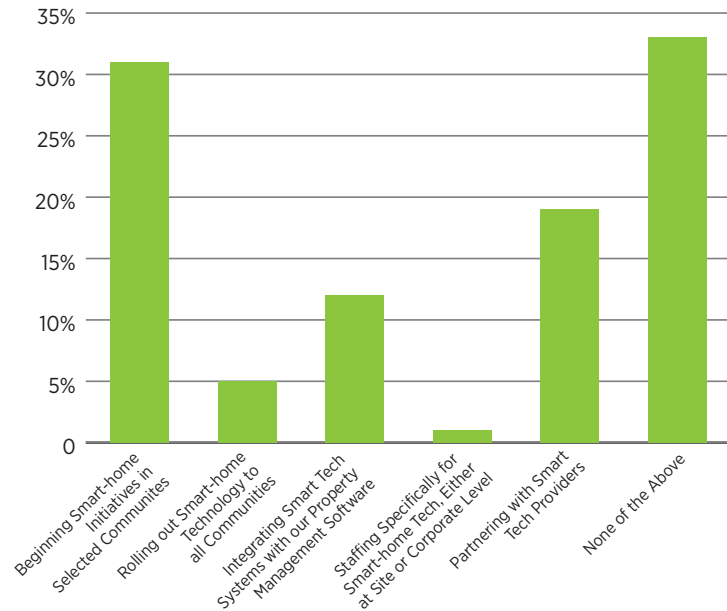
Evaluating multiple systems. Our choice will be the company with the best service/support

Owner/Operator Profile TOP RESPONSES

ANNUAL REVENUE

LESS THAN $10 MILLION	25%
$10 MILLION TO $100 MILLION	22%

NUMBER OF EMPLOYEES

100-999	45%
LESS THAN 100	34%

NUMBER OF UNITS OWNED OR MANAGED

1,000-4,999	31%
OVER 15,000	27%

PROPERTY LOCATIONS

SOUTH	WEST
64%	44%

MIDWEST	NORTHEAST
31%	26%

6

Wary but Curious RESIDENTS

Findings from the resident survey mirrored that of owners, showing that those residents who have experienced smart-home features have done so at a more basic level. The most common features our survey respondents already had in their apartments and communities were security cameras, voice command assistants and the ability to complete the lease/renewal process online.

More than half of the residents who have smart-home technology reported that it had very little impact on their decision to rent that apartment. Of course, it's important to note that of the 10 features included in the survey, six had greater instances of being provided by the resident versus the owner/operator, particularly voice command assistants. Other tech more commonly provided by the resident included smart home hubs and robot vacuums. Owners and operators tended to provide security cameras and smart door locks more frequently than other smart-home features.

WHAT MAKES **RESIDENTS** UNCOMFORTABLE WITH SMART-HOME TECHNOLOGY?

"

Just another thing that doesn't work & beeps at me

"

Approximately **58 percent of residents found smart-home technology to be beneficial.** Making their lives more efficient ranked highest among benefits followed by convenience and having control. Convenience also plays a big role in general amenities packages, with residents in some metro areas willing to pay up to $35 more per month in rent for amenities that offered some sort of convenience factor. [3]

More than half of our respondents said they've had no issues with smart-home tech. General technical glitches were cited by 93 percent of residents who did report issues. Comparatively few (14 percent) said they had their privacy or data compromised.

An overwhelming **84 percent of residents surveyed who don't have smart-home technology in their apartments reported that they would like to see features implemented in their communities.** Residents are most interested in smart thermostats followed by security cameras. Smart lighting and smart door locks also ranked high. More than 30 percent of respondents also expressed interest in each of

RESIDENT SURVEY

Which of the following features that you don't currently have would you like to see in your apartment? (PERCENTAGE)

Smart Home Hub 3%
Other 1%
Pay Rent Through Voice Command 4%
None of the Above 5%
Voice Command Assistant 5%
Smart Doorbell 9%
Smart Appliances 9%
Robot Vacuum 9%
Smart Door Lock 12%
Smart Lighting 13%
Security Camera 15%
Smart Thermostat 15%
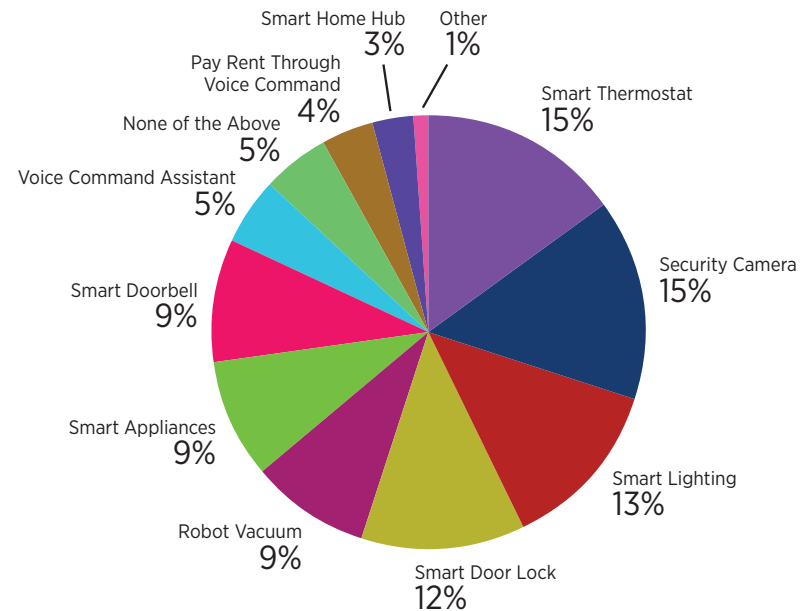
" *My refrigerator doesn't need an IP address* "

the following: Robot vacuums, smart appliances and smart doorbells. These findings line up with NAA's 2018 survey[4] measuring resident engagement in energy efficiency. The number one activity residents were already engaging in at that time was adjusting their thermostats to save energy. And the top features residents had asked their owners and managers to install were smart thermostats, energy-saving window treatments and Energy Star® appliances.

But are they willing to pay more for all of this? That answer varies by the specific feature, but it should come as no surprise that when given a choice, "not willing to pay more" garnered the most responses. There were three exceptions, however: Smart

door locks, robot vacuums and security cameras, for which a higher percentage of residents were willing to pay up to $10 per month more. In the $10-$25 per month premium category, nearly 1 in 4 residents would stretch further for a security camera. Twenty-four percent of residents would pay up to $25 a month more for smart appliances while another 21 percent would pay that amount for a smart thermostat.

Once residents get a taste for smart-home technology, they describe their engagement level with it as medium to high (61 percent). The majority of residents (67.7 percent) reported being comfortable with smart-home technology. The remaining survey respondents cited privacy concerns as the No. 1 reason they were uncomfortable with the technology, followed by the cost and an intimidating learning curve. For those who wrote-in responses, a common theme for being uncomfortable was a simple lack of familiarity with smart-home technology. Others were concerned with what happens when the systems fail while some expressed concern that it would cultivate laziness.

WHAT MAKES **RESIDENTS** UNCOMFORTABLE WITH SMART-HOME TECHNOLOGY?

" *I don't want to outsource my brain any more than I'm already doing with saved phone numbers, passwords, etc.* "

COLLEGE GRADUATE AND UP **61%**

AGED 18-44 **68%**

FEMALE **56%**

INCOME $25-$75K **42%**

LOCATION

20%
PACIFIC
(WA, OR, CA, AK, HI)

17%
SOUTH ATLANTIC
(DE, DC, FL, GA, MD, NC, SC, VA, WV)

15%
EAST NORTH CENTRAL
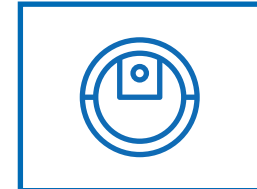(IN, IL, MI, OH, WI)

Top 5 Features Residents Are Willing to Pay More For

1 SECURITY CAMERA

2 SMART DOOR LOCK

3 ROBOT VACUUM

4 SMART HOME HUB

5 VOICE COMMAND ASSISTANT

Smart-Home Technology in Apartments
How much more, if anything, would you be willing to pay per month?

	< $10	$10-$25	$26-50
Smart thermostat	36%	21%	3%
Smart lighting	37%	17%	3%
Smart door lock	44%	17%	4%
Smart doorbell	31%	18%	3%
Security camera	37%	24%	5%
Smart home hub	33%	16%	11%
Smart appliances	29%	24%	6%
Voice command assistant	36%	21%	4%
Pay rent through voice command	24%	11%	0%
Robot vacuum	39%	20%	5%

TECHNOLOGY IN APARTMENT LIVING

10

Getting Smarter in the Future

Not every resident is interested in smart-home features, but technology is nothing if not pervasive. According to the Pew Research Center, smartphone ownership among older age cohorts (50+) in the U.S. jumped from 53 percent to 67 percent in just three years.[5] For those residents who remain wary of smart-home tech, particularly as it relates to privacy concerns, communication, education and transparency will be key in easing those concerns.

Owners and operators who have not yet dipped their digital toes in the silicon with smart-home technology will find themselves falling further behind at a faster pace. Waiting for a future-proof technology may prove to be a fruitless exercise if the industry keeps evolving as it has during the past several years. While not all communities are suitable for top-of-the-line technology, features now considered basic – security cameras, smart thermostats, motion-sensing

lighting, resident portals – can go a long way toward attracting and retaining residents. One thing is certain: As residents become increasingly engaged with smart-home technology, it will be harder to break them of the efficiency, convenience and control when they're considering a move to another community.

Notes

1. *Adding Value in the Age of Amenities Wars*, April 2017, NAA

2. *"Coldwell Banker Real Estate and CNET Define "The Smart home,"* May 2016

3. NAA Research analysis of amenities with highest rent premiums in 13 metro markets; data provided by Enodo, September 2017

4. *"Maximize Resident Engagement with Energy Efficiency"* by Holly Charlesworth, Paula Munger and Paul Yoon, NAA, June 2018; survey conducted by the Shelton Group.

5. *"Smartphone Ownership Is Growing Rapidly Around the World, but Not Always Equally"* by Kyle Taylor & Laura Silver, Pew Research Center, February 2019

Waiting for a future-proof technology may prove to be a fruitless exercise if the industry keeps evolving as it has during the past several years.

About the Report

This report was sponsored by Maintenance Supply Headquarters, which collaborated on the topic choice. Survey questions, design, distribution and analysis for this report were conducted by NAA Research.

The Owner/Operator Survey was open from November 15-December 6, 2018 and received 165 responses from senior leadership in NAA member companies.

The Resident Survey was open from February 5-9, 2019 and received 2,143 responses from renters, 745 of which were identified as living in properties with 5 or more units. The analysis in this report is based on this subset. In addition to being able to write in responses, individual smart-home features covered in the survey included: smart thermostats, smart lighting, smart door locks, smart doorbells, security cameras, smart home hubs, smart appliances, voice command assistants, pay rent through voice command, robot vacuums, self-guided tours, leasing/renewal process able to be completed on line, package management systems, smart access and smart security.

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