MDUs and Device Evolution

Emerging broadband technologies and smart devices have the potential to provide strong value for channel partners and their MDU customers.
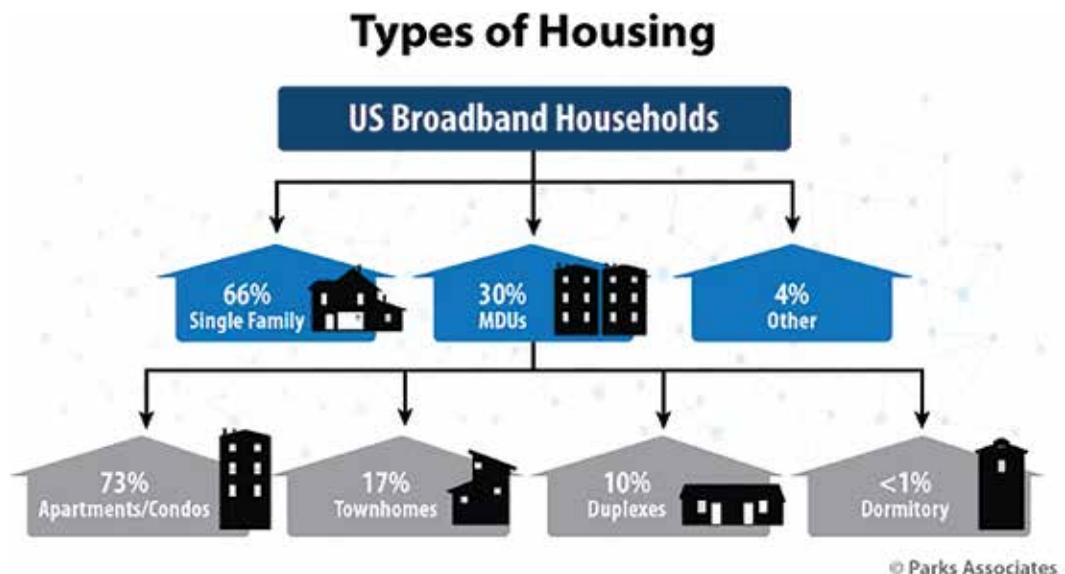
By Patrice Samuels / *Parks Associates*

Smart-home device manufacturers and service providers continually seek new product distribution channels to drive market growth. Channels such as home builders/ property developers, insurance companies and multiple-dwelling-unit (MDU) property management companies provide smart-home brands the ability to access large customer bases, improve market awareness and increase product reach. As smart-home product and service providers seek to establish partnerships in these channels, they must develop and offer products and services that provide strong value for channel partners and their customers.

Currently, 30 percent of U.S. households (36 million households) with broadband are in MDUs, 66 percent (79.5 million households) are in single-family homes and 4 percent (4.8 million households) report other kinds of accommodations, such as mobile homes. MDUs can be further subdivided into other subcategories by building type and by housing purpose.

ENTER G.FAST
Emerging technologies, such as G.fast, will help drive MDU adoption of smart-home technology. Broadband network improvements geared at increasing overall internet speed and reliability

Types of Housing

US Broadband Households

66% Single Family | 30% MDUs | 4% Other

73% Apartments/Condos | 17% Townhomes | 10% Duplexes | <1% Dormitory

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will improve responsiveness and reduce latency when using smart-home devices.

The new G.fast standard will help broadband providers offer ultrafast broadband to MDU properties without the need to build out expensive fiber networks. G.fast can be used over existing copper and coax networks that serve MDUs.

G.fast allows service providers to leverage MDUs' existing wiring to theoretically deliver between 100 Mbps and 1 Gbps, depending on loop length.

Several service providers – including AT&T, CenturyLink, Cincinnati Bell and Frontier – either are trialing G.fast or are rolling it out in select markets.

AT&T is clearly the most aggressive. The telco has started to roll out G.fast technology to apartments and condominiums throughout metropolitan areas across the United States. The telco now offers this broadband feature in 22 major U.S. metro areas.

Cincinnati Bell also is evaluating G.fast for use in multifamily properties the company serves. However, the company currently is being acquired by Macquarie Infrastructure Partners, which could delay the introduction of these technologies.

Frontier has been running a G.fast trial with Nokia in the Connecticut market, but has yet to announce any others. The telco's movement with G.fast into additional markets may also be delayed as the telco migrates through its ongoing restructuring process.

SMART DEVICE OPPORTUNITIES, CHALLENGES

Though smart-home device manufacturers have long had interest in selling products in the MDU housing market, unique challenges created barriers to market entry, including integration challenges, security and privacy concerns, the need for increased technical support, and challenges with Wi-Fi.

- Twenty-one percent of MDU broadband households report owning at least one smart-home device, compared with 24 percent of all U.S. broadband households and 26 percent of single-family households.

- The top seven devices owned by MDU residents are smart thermostats, smart cameras, smart light bulbs, smart video doorbells, smart door locks, smart smoke/carbon monoxide detectors, and smart lighting-control systems.

MDU rental properties represent particularly lucrative opportunities for smart-device manufacturers because MDU property managers that integrate smart-home solutions typically deploy multiple devices to multiple units at a time. Smart-home platform providers that target the MDU space created solutions, such as integrating with existing property management solutions, to make smart-home products a better fit for multifamily homes.

Property owners and managers still waiting to implement smart-home technology will find a quicker path to return on investment once device manufacturers have taken the following steps:

- **Make devices easy to install:** Devices easy to install minimize the need for property managers to hire outside contractors to handle installation, ultimately reducing the capital expenditure for MDU properties seeking to implement smart-home devices and gain ROI.

- **Improve interoperability:** Device interoperability is still a challenge for the smart-home industry as device manufacturers leverage a range of disparate technologies and wireless networking protocols into their products. To minimize the potential for interoperability issues, smart-home solution providers offering services to the MDU space typically offer a curated set of devices from brands that work well together. All efforts to achieve seamless interoperability – whether through the development of a shared open standard for communication, API integrations, or application layer integration – are emerging slowly.

- **Create products with flexible technology architecture:** The rapid pace of technical innovation can create reluctance among property managers to adopt smart-home devices. It's important that the technology architecture of each product is designed in a way that gives sufficient headroom for additional applications and upgrades over the product lifetime. Having to replace products frequently because of obsolete technologies threatens property managers' ability to achieve ROI.

In early 2018, Control4 introduced its CA-1 Automation Controller, a solution designed to help Control4 dealers, homebuilders, MDU developers, and hoteliers provide orchestrated smart-home experiences to customers. The CA-1 is designed with Ethernet, Wi-Fi, Zigbee and serial communication. It also leverages Control4's large database of third-party devices.

The result of these integrations in the CA-1 is that the solution promotes seamless integration and interoperability among connected devices, offering cohesive, rather than disjointed smart-home experiences. The CA-1 focuses on lighting, security and safety-related smart-home solutions.

Smart-home devices and related services also can drive a reduction in operational costs for MDU property managers through reduced maintenance, reduced staffing, enhanced monitoring capabilities, and improved energy efficiency and drive higher revenue by increasing occupancy and rental rates. There will continue to be growing opportunities for integration of smart devices in MDUs that benefit consumers, MDU owners, and property managers. ❖

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