Smart Homes: Where to Start

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As a builder, you're probably grappling with how to respond to the maelstrom of sales pitches and TV ads that portray consumer demand for so-called smart devices for the home, from Amazon's Alexa to thermostats that learn lifestyle habits and refrigerators that conjure shopping lists on a smartphone.

Some of you have already dipped your toe in those waters, partnering with local service providers and integrators to accommodate buyer demands for a modicum of smart home functionality and select features. Or maybe, like a lot of builders, you're still on the sidelines, searching for a role.

And yet, that role is hiding in plain sight: To deliver a robust and reliable infrastructure that will enable smart things and the lifestyle habits they support (or direct) now and in the future.

"There are lots of great devices and applications out there, but none of them can work properly if the underlying network infrastructure in a home isn't robust," says Randy Ryder, Marketing and Business Development Manager at Wi-Fi Alliance® in Austin, Tex. "It's a huge opportunity for builders to enable what consumers have and will want for a connected home."

And while different devices work best with different signals – from simple cellular and Bluetooth to more robust Wi-Fi® and proprietary networks, hubs, bridges, clouds and mesh schemes – it all starts with your floor plans.

Optimizing Performance

Wi-Fi Alliance, a worldwide network of companies that defines standards-based Wi-Fi technologies and programs and certifies products, recently rolled out its Wi-Fi CERTIFIED Home Design™ program for new-home builders.

The goal? To help you design floor plans that include high performance Wi-Fi networks designed to deliver the best wireless experience possible throughout your new homes, including basements, garages, and outdoor spaces.

"The network design becomes part of the builder's normal home design process," says Ryder, revealing the optimal location of one or more access points determined by square footage, performance metrics, layout and other factors.

For a $15,000 membership fee that gives you access to various guidelines and tools, plus a per-plan payment, Wi-Fi Alliance reviews your floor plans (in the form of CAD drawings, simulation reports and other data you provide) for compliance with its standards; those that pass the test are certified by Wi-Fi Alliance, a marketing and sales tool you can leverage with potential buyers.

Though the Wi-Fi Alliance program does not dictate structural or other materials used in the home's construction, or the actual network installation, it does require all access points to be hard-wired and accessible, typically placed in the ceiling like a smoke alarm.

Those access points must also deliver simultaneous 5 and 2.4 gigahertz channels – “dual band” in industry lingo – to accommodate not only a baseline of connected devices now (including a modem from the local Internet service provider), but what is inevitably far more down the road.

Ryder estimates that a family of four today accounts for about 15-20 connected devices, a number that will only grow as more smart products become available and a truly networked home delivers real consumer value.

“The dual-channel requirement of our program ensures future-proofing for that growth,” he says, adding that most wireless access points support well over 35 separate devices and offer multiple channels to extend their capacity. “The goal is to increase throughput (signal capacity) and reduce latency (signal delay)” so devices meet consumer expectations now and well into the future.

Beyond the Backbone

Delivering a reliable, robust and future-proofed smart home infrastructure is an obvious and critical role for a home builder, but not the only one.

You can extend your value proposition by being a conduit to trusted local service providers and smart home device integrators who can work with your buyers to leverage the backbone you provided, from security systems to lighting, landscape irrigation, indoor comfort and voice-activated assistants.

That strategy relieves you of having to anticipate and choose – at some risk – a specific suite of smart home devices that may or may not suit fickle, fragmented and brand-loyal consumers.

In addition, as you do with other aspects of new-home maintenance, you can provide handy tips for keeping a smart home secure, addressing a key concern among homebuyers.

For example, encourage and educate homeowners to change default gateway passwords to something stronger (note: not a birthdate or child’s name), improve encryption protocols, modify per-device security settings, install or allow automatic updates, and disable remote access to some (if not all) connected devices until needed.

Do that, and your prospective homebuyers (and eventual homeowners) will see you as a hero … and a savvy smart home provider.