



RESO Business Case: Smart Home Standards

Business Need: Define Problem or Opportunity

As consumers add web-enabled products to their properties (smart appliances, smart voltaics, smart HVAC, etc.), it is inevitable that the data points surrounding them (brand, type, capabilities, access, energy consumption, ownership transfer, factory reset Y/N, etc.) will be seen as no less important to the transaction as driveway, chimney, etc.

Unlike chimneys and driveways, however, smart devices do not automatically transfer ownership with the property, and they gather significant amounts of data, both in terms of personally identifiable information (PII) and behavioral, on the original owner. Three areas for RESO to consider data ramifications have been identified:

1. Consumer Behavior
2. Disclosures
3. Ownership

Consumers:

Consumers will want to be able to search by specific smart devices (e.g., Tesla Powerwall), capabilities (e.g., Level 1, Level 2, Level 3 EV chargers), level of automation (e.g., smart devices controlled via a central hub), etc. Brokers and agents will need MLSs to provide data fields in the MLS to be able to meet these consumer needs in a more efficient way than in the “comments” section of a listing.

Disclosure:

From a disclosure perspective, listing brokers and agents will need the ability to indicate that smart devices are present in the home, including surveillance capability (i.e., Ring doorbell or other assets that can capture conversation or video).

Ownership:

Smart appliances are blurring the line regarding what is traditionally sold with the house as a fixture. While it is understood that what constitutes a fixture is set by each state’s law, brokers have already encountered the following two situations in practice:

1. Buyer’s offer on a property that includes a Nest thermostat was accepted. At the final walk through, the buyer notices that the Nest has been replaced by a fully functional thermostat that is not a Nest. The seller wanted to take the Nest to their next home, because it had already “learned” their habits.
2. Buyer’s offer on a property with a high-tech, web-enabled and remote control app HVAC system is accepted. Buyer takes possession of the home without the passwords to the control panel or remote being provided. Even though in working condition, the



HVAC system cannot be controlled by the buyer without either getting password access (depending on the good will of the seller) or by incurring additional expense to have control units replaced.

Smart devices, even separated from the data they generate, will eventually be seen as assets of the property in and of themselves. The data requirements needed to permit advertising, appropriate disclosures and facilitate ownership transfer will benefit tremendously from a conscious effort from RESO to build standards around what should be collected.

Beyond solving the problem, however, is the opportunity for RESO to engage with product manufacturers, bring them into the real estate ecosystem and bring standardization to an emerging field that will (eventually and at scale) generate consumer behavioral/use data of significant value. For instance, a smart tech manufacturer having insight into other devices present in the home for networking, add-on promotions, age of devices for replacement, etc.

Analysis: Assess Root Causes and Capabilities Gap

Assumptions:

1. There is not an industry standard for what a “factory reset” means for the data and ownership of a device.
2. Smart technology in homes will become the rule, rather than the exception.
3. Smart tech appliance manufacturers view their products as stand-alone and not as a connected part of the real estate sale.

Constraints:

1. Smart tech appliance manufacturers view their products as stand-alone and not as a connected part of the real estate sale.
2. MLS, brokers and agents do not want to be responsible for being tech support to transfer ownership of smart devices from seller to buyer.

Dependencies: RESO workgroup

Stakeholders: Brokers, agents, MLSs, RESO

Risks:

1. Not bringing standardization to smart tech at the RESO level means local MLSs will begin to make their own decisions based on need. Pushed by local broker/agent demand, they will create their own definitions, disclosures, etc., putting standardization at risk.
2. As has already happened with Apple, Amazon and Google agreeing on smart home tech standards, the data standards manufacturers bring may not be at all what the real estate industry needs. We should not lose sight of the fact that each of these



manufacturers fully understands the value of the data they will be gathering – and fully understand that collaboration on standards benefits them all in their data-gathering efforts.

3. Doing nothing will only enable Apple, Amazon and Google to capture vital real estate-related data, making the MLS less relevant and leaving brokers/agents on the hook to buy leads off data the MLS should have been gathering.

Recommendation: Define Deliverables Scope

Goals:

1. To identify the data fields necessary to meet consumer demand for smart technology and ensure transparency of tech-enabled homes, ownership transfer and protection of PII data for consumers, brokers/agents and MLS.
2. To proactively identify, gather and build data and use standardization around likely growth areas powered by data generated from smart tech appliances in homes.

Requirements (Critical Success Factors):

- The solution MUST:
 - Identify the data fields necessary to track, advertise and facilitate ownership transfer of smart technology in properties.
- The solution MAY:
 - Work directly with manufacturers on real estate standards for data capture, transfer of ownership, monetization and factory reset.

Implementation: Describe Most Feasible Approach

Action Plan: TBD

Evaluation: Measure the Costs and Benefits

Financial Costs: TBD

Labor Costs: TBD

Timing/Schedule: TBD

RESO Benefit

- **Awareness:** TBD
- **Membership:** TBD
- **Revenue:** TBD

RESO Strategic Alignment: Efficiency, Streamlined Real Estate Technology



Creation: TBD

Adoption: TBD

Leadership: TBD