



## CABA RESEARCH PROGRAM

### The Connected Home – Research Project Opportunity Summary

#### **Macro-Market Opportunities in Connected Home Development**

##### **(1) Feature Development:**

Opportunity - Personal health monitoring within connected homes and via mobile platforms

##### **(2) Aggregation and Integration of Platforms:**

Opportunities - New screen strategies in application integration  
Market specialization (i.e. Digital Moms, Digital Seniors)

##### **(3) Market Expansion:**

Opportunities - Critical mass achieving social consumption  
Adoption/participation in unconventional markets (i.e. gov'ts)

##### **(4) Evolution to Next Generation Connected Homes:**

Opportunities - Proliferation of open-source  
Other market influences (expansion into Asia-Pacific, emerging markets)

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#### **Addressing the Needs of End-Users**

##### **(1) Opportunity: Transforming Applications into Solutions**

Address consumer difficulty in sorting through the emerging proliferation of content, capabilities and features. Most consumers envision a central 'engine' or 'CPU' in their home providing capability to meet all of their 'home connection' needs:

- They see their entertainment/computer systems as well as their heating/cooling, lights/water and major appliances connected to this central unit.
- They want the ability to start with a rather basic system and add on either additional capabilities or new appliance/electronic components.

Opportunities:

- Help the consumers sift through 200,000 applications
- Provide the consumer bigger solutions that are more meaningful and that leverage individual application problem solving
- Let consumers aggregate applications into solution systems that make sense



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- Provide aggregation customization quickly by being able to integrate new and better apps when available
- Provide consumers with a tool to leverage each app for its best capability and coordinate apps

Examples:

- Health App Aggregator, Security App Aggregator, Entertainment App Aggregator
- Aggregate content and applications from multi vendors and deliver comprehensive control to the consumer for, peace of mind, and energy savings for the home
- Make logical connections and provide whole solutions that deliver greater value than individual applications, via coordinated delivery and control of relevant content
- Provide consumer-facing interfaces that make sense, and provide value to the consumer (and communicate the value proposition)

### **(2) Opportunity: The NextGen Digital Mom**

NextGen Digital Moms are as task oriented as their predecessors. The difference lies in their ability to see specific applications and devices as tools that help accomplish getting tasks accomplished, from entertainment to organization and beyond. The difficulty of sifting through multiple applications and different devices remains a frustration. A very real opportunity exists to assist Moms in aggregating relevant applications and developing new devices that provide more robust solutions to everyday problems.

Opportunities:

- Identify ecosystem opportunities that apply to Moms everyday jobs regarding family wellness, child education, household finance and organization
- Solid opportunities were found to exist among "Digital Moms" within the following areas:
  - Analyzing appliance efficiency
  - Scheduling appliances
  - Energy management programs
  - Water conservation and monitoring systems

### **(3) Opportunity: The NextGen Digital Senior**

Senior life in the future may not be fully supported by the current solution sets provided in facilities that address senior living (including homes, independent-living and assisted-care facilities). By assessing the digital lifestyle expectations of the near-senior population (50 – 60), identification of products, capabilities and features can be developed, marketed and leveraged to meet the needs of this growing population.

To better understand the potential this industry sector and demographic might have for connected solutions, a non-technical review of adjacent influences in the ecosystem could be conducted.



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Opportunities:

Adjacent areas of study could include:

- Developments in digital health investments;
- Developments in healthcare-driven personal area networks and their impact or reliance on the connected home space
- The entry and impact of non-traditional players in the connected home ecosystem (i.e. health care providers, facility managers, insurance providers)
- Potential business models that support the proliferation of quality senior living digital solutions.

Significant investments are being made in the digital home space by entities (commercial and government) that may significantly impact the landscape of the connected home. As a result, a better understanding of which potential ecosystem participants are most likely to benefit from or disrupt other participants in this space warrants examination. In doing so, a more complete view of the potential for the connected home can be determined.

#### **(4) Opportunity: Connected Home Market Messages**

In addition to 'traditional' market development efforts, opportunity exists to identify which components of next generation connected home solutions might be leveraged to develop effective marketing strategies that resonate with the mass market (identifying emotional and functional drivers beyond those known for the typical early adopter). Assuming that connected home solutions require the resources of an ecosystem, it would follow that the marketing messages required to communicate the value proposition might not be easily 'deployed' by any individual ecosystem participant.

Opportunities:

By identifying and fully examining the emotional and functional drivers behind an overarching 'connected home' marketing initiative, it is possible to determine the following:

- The specific elements of marketing strategies that are best suited for each ecosystem participant
- The shared elements of a common connected home marketing strategy that might be deployed by all ecosystem participants
- The role modern social marketing might play in raising awareness of connected home technology as a viable and valuable product
- The impact a 360-degree marketing effort might have in mass-market adoption of connected home products and services



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# CABA Connected Home Roadmap August 2010

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**CABA Connected Home Roadmap  
August 2010**

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## **CABA Connected Home Roadmap August 2010**

### **3. Parks Associates - Assessment of Connected Home Solutions Market Segments**

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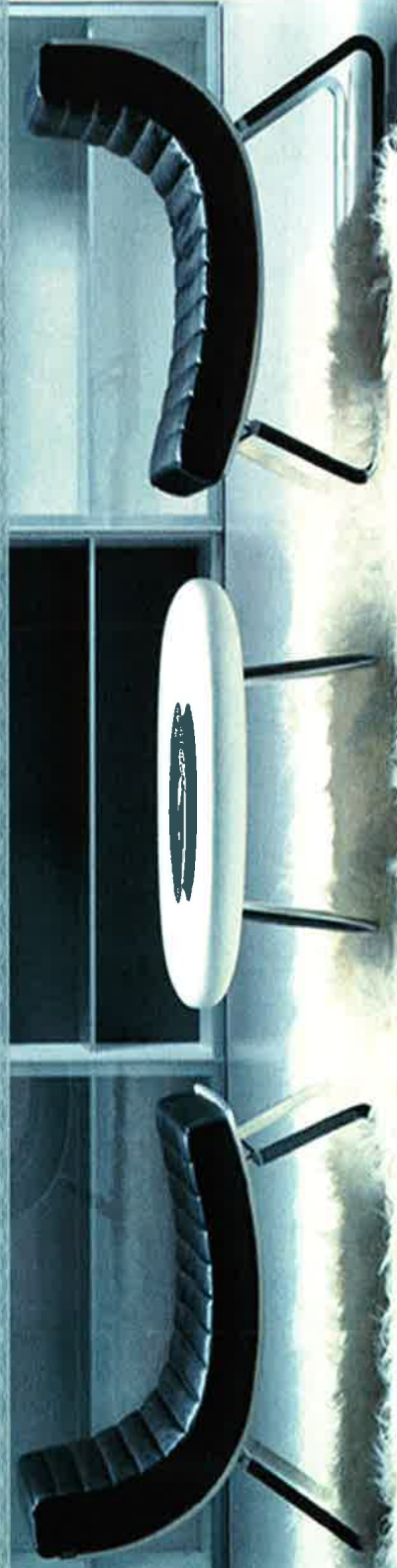
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# CABA

Connected Home Roadmap | Analysis  
August 18, 2010



## Connected Home Roadmap

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## Connected Home Roadmap

### Introduction

This document reflects POCO Labs analysis of recently conducted research activity by JLA and Parks Associates, in support of the CABA 2010 Connected Home Roadmap project. The efforts in support of the creation of this document are designed to enable project sponsors to best understand the market landscape and overlay of existing and emerging opportunities for both consumers and companies across the connected home value chain.

The analysis contained herein reflects and synthesizes the insights from (but not limited to):

- 2010 JLA research documentation;
- 2010 Parks Associates research documentation;
- Past CABA research activity; and
- Related and analogous research that POCO Labs has conducted over the past ten years on behalf of clients in the connected home ecosystem.

This effort is intended to synthesize and present:

- POCO Labs' analysis of the recent research and how it relates to the individual focus areas defined by CABA (Security, Entertainment, Home Control, Energy Management & Green Living, and Health Monitoring & Safety);
- POCO Labs' point of view as to how this research activity (and others) might impact the overall connected home technology ecosystem; and
- POCO Labs' recommendations for a variety of next-step exercises (Opportunity Briefs) derived from this roadmap activity, that will provide CABA member companies with relevant, unique and valuable insights that are most effectively realized by the collaborative nature of the organization.

**Ecosystem Development**

## Connected Home Roadmap

### Ecosystem Development

Defining clear motivators and directions for “**Smart Home**” initiatives has been **difficult** from the very beginning.

The idea of “The Smart Home” has always been popular fodder for the media, however its **value proposition** has not resonated with mainstream consumers.

## Connected Home Roadmap

### Ecosystem Development

Over ten years of research with Internet Home Alliance and later CABA, consumers could only identify discreet elements of functionality that would motivate them to becoming engaged with smart home solutions. Those motivators became stand alone solutions... Wireless in the Home, Mobile Work, Cell Phones with Family Plans, Set Top Boxes, etc.

## Connected Home Roadmap

### Ecosystem Development

What has emerged with consumers is a need to weave these discreet elements, applications, and platforms together into relevant and customizable solutions that meet the needs of consumers on a day to day basis.

## Connected Home Roadmap

### Ecosystem Development

Considering 'smart home' with a feature-level point of view  
(like opening a window shade or remotely opening a lock)  
doesn't mirror consumer's expectations for a solution.

## Connected Home Roadmap

### Ecosystem Development

It's kind of like asking automobile shoppers to have an opinion about air bag sensors.

They know the feature is important.

They know the feature contributes to the overall product.

But they still shop for and spend money on an overall, aggregated experience.

## Connected Home Roadmap

### Ecosystem Development

The new consumer expectations for 'smart home' will demand solutions that are:

**Seamless** (complementary to each other),

**Ubiquitous** (available anywhere, everywhere, at any time), and

**Elegant** (the user experience is simpler than the technology).

## Connected Home Roadmap

### Ecosystem Development

Smart home development has (successfully, so far) concentrated on discrete elements.



## Connected Home Roadmap

### Ecosystem Development

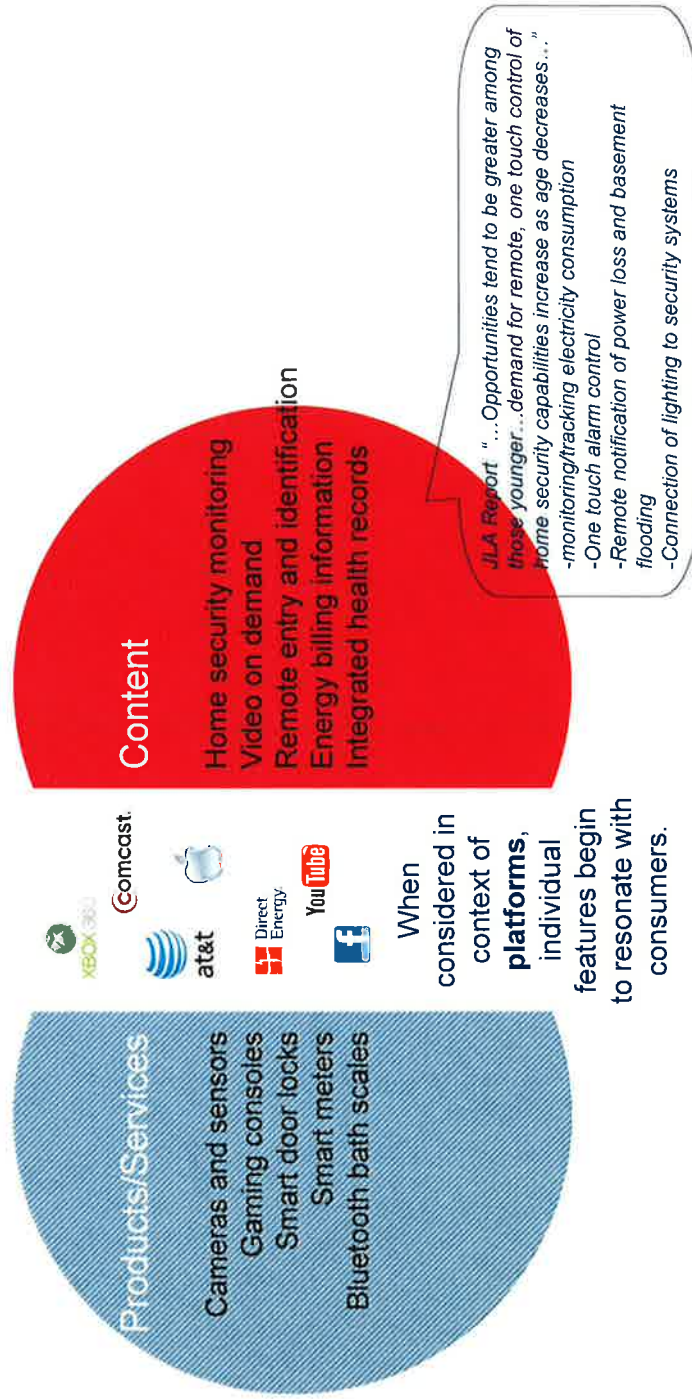
However, consumers have far too little time, patience, or knowledge to rationalize or identify a meaningful connected home solution based on the individual presentation of those features.



## Connected Home Roadmap

### Ecosystem Development

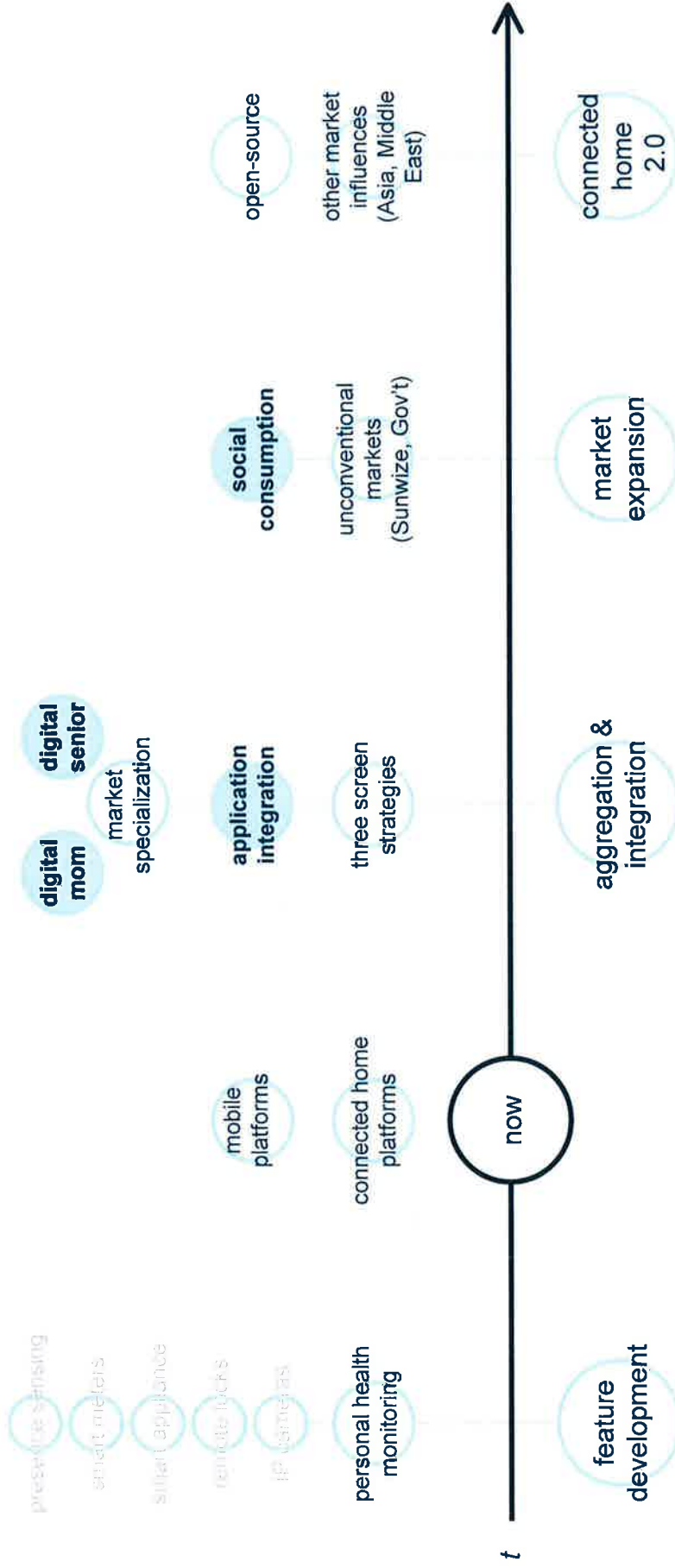
The ecosystem for connected home solutions has evolved beyond feature development, and requires new thinking around how to bundle products, services and content.



**Relevant Opportunities**

## Connected Home Roadmap

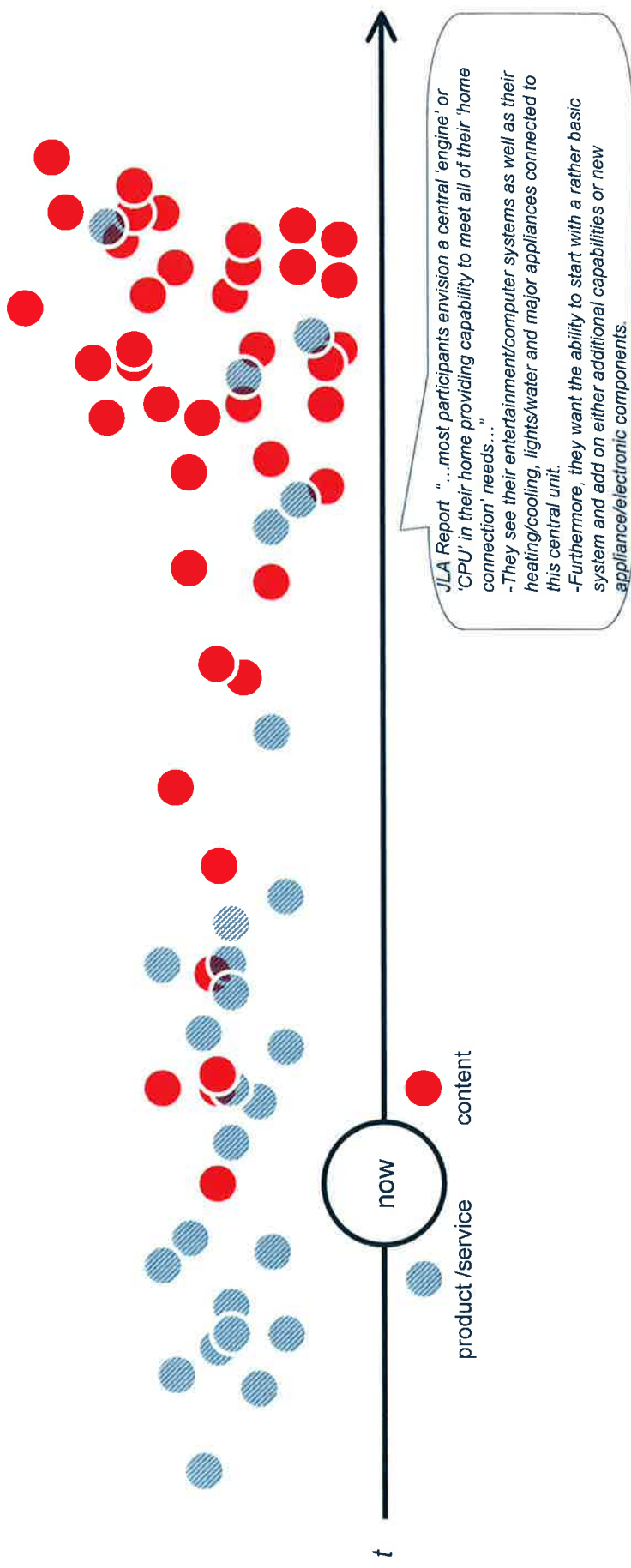
### New Definitions and Expectations Emerge



## Connected Home Roadmap

### Opportunity: Turning Applications into Solutions

Addressing the consumer's pain in sorting through the upcoming proliferation of content, capabilities and features.



## Connected Home Roadmap

### Opportunity: Turning Applications into Solutions

**Addressing the consumer's pain in sorting through the upcoming proliferation of content, capabilities and features.**

#### Identified Opportunity and Pain Points

- Help me (the Consumer) sift through 200,000 applications;
- Give me (the Consumer) bigger solutions that are more meaningful and that leverage individual application problem solving;
- Let me (Aggregation Provider) bucket applications into solution systems that make sense to consumers;
- Let me (the Aggregation Provider and the Consumer) customize on the fly by being able to bring in new and better apps when available; and
- Give me (the Consumer) a tool to leverage each app for its best capability and coordinate apps to work for me.

Examples: Health App Aggregator, Security App Aggregator, Entertainment App Aggregator

#### Potential CABA Member Opportunity

"Home Comfort" Application Aggregator brought to you by Trane. We aggregate content and applications from Schlage, Lennox, Microsoft Hohm, etc... delivering comprehensive control, peace of mind, and energy savings for your home.

We (Trane) make "the comfort ecosystem" work better for the consumer because we bring everything together for them. We make logical connections and provide whole solutions that deliver greater value than individual applications because we coordinate the delivery and control of relevant content. We don't have to develop each piece of the solution but, but we do understand consumer needs better, have the ability to craft bigger solutions that make sense, and provide value to the consumer. Our consumer-facing interface is critical and will determine a huge part of the value proposition.

## Connected Home Roadmap

### Opportunity: NextGen Digital Mom

NextGen Digital Mom are as task oriented as their previous generational counterparts. The difference lies in their ability to see specific applications and devices as tools that help accomplish getting tasks accomplished, from entertainment to organization and beyond. The difficulty of sifting through multiple applications and different devices remains a frustration, and a very real opportunity arises to assist Moms in stitching together applications and developing new devices that provide more robust solutions to everyday problems.

#### Identified Opportunity and Pain Points

-Identify ecosystem opportunities that apply to Mom's everyday jobs.

Ecosystems of Focus: Family Wellness, Child Education, Finance, Organization, etc...

*JLA Report "...some additional opportunities are greater among females than males...solid opportunities are even stronger among women...weak opportunities among men are solid among women..."*

- Analyzing appliance efficiency
- Scheduling appliances
- Energy management programs
- Water conservation and monitoring systems

## Connected Home Roadmap

### Opportunity: NextGen Digital Senior

Senior Life in the near future won't be fully supported by the solution sets provided in current-day facilities that address Aging in Place (including homes, independent-living and assisted-care facilities). By comparing the digital lifestyle expectations of the near-Senior population (50 – 60), members of the CABA can identify what products, capabilities and features might be developed, marketed and leveraged to meet the needs of this significant population.

To fully understand the potential this industry sector and demographic might have for connected solutions, its recommended that a non-technical review of adjacent influences in the ecosystem be conducted. Those adjacent areas of study might include:

- Developments in digital health investments;
- Developments in healthcare-driven personal area networks and their impact or reliance on the connected home space;
- The entry and impact of non-traditional players in the connected home ecosystem (ie. health care providers, facility managers, insurance providers); and
- Potential business models that support the proliferation of quality Aging in Place digital solutions.

### CABA Member Benefit

Significant investments are being made in the digital home space by entities (commercial and governmental) that may significantly impact the landscape of the connected home. By understanding what ecosystem participants are most likely to benefit from or disrupt current CABA member initiatives, a more complete view of a connected home Roadmap can be determined.

## Connected Home Roadmap

### Opportunity: Connected Home Market Messages

As an adjunct activity to member companies 'traditional' market development efforts, it's recommended that the CHRC identify what components of next generation connected home solutions might be leveraged to develop robust marketing strategies that resonate with mass market (identifying emotional and functional drivers beyond those known for the typical early adopter). Assuming that a true connected home solution requires the resources of an ecosystem, it would follow that the marketing messages required to communicate the solution potential might not be easily 'deployed' by any individual ecosystem participant.

#### CABA Member Benefit

- By identifying and fully examining the emotional and functional drivers behind an overarching 'connected home' marketing initiative, CABA members can:
- Determine what elements of marketing strategies are best suited for each ecosystem participant;
  - Determine what shared elements of a common connected home marketing strategy might be deployed by all ecosystem participants;
  - Identify what role modern social marketing might play in raising awareness of connected home technology as a viable and valuable product; and
  - Determine what impact a 360 degree marketing effort might have in mass market adoption of connected home products and services.

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