Smart Home as a Service (SHaaS)

Market Map + Product Development Strategy

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Project Background

is designing a service to help people seeking to adopt and integrate "smart home" devices

Delivery of this service requires a knowledgeable, responsive and engaging workforce

Zylter is conducting market analysis to help ##### identify and compare various service delivery options

Key Smart Home Device Categories:

LIFESTYLE	- Amazon Echo Wall Clock - Google Chromecast - Video-to-device - In-Home Robot Assistants
SECURITY	- August Smart Lock - Cori HD Security Camera - Ring Video Doorbell 2
ENERGY	- iHome - Outdoor lighting control - Philips Hue Lights - TP-Link HS105 Smart Plug
COMMUN-ICATIONS	- Google Home - Amazon Alexa Echo Plus Apple Home Pod
ENABLING INFRASTRUCTURE	- Google Assistant Connect - Alexa Gadgets Toolkit - Google Home Hub

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Our approach for guiding Smart Home service design

	Zylter Tech Scouting + Assessment Process
0	A Compelling Commercial Technology Application
1	Identify ##### Impact Points
2	Understand + Define the Sociotechnical System Use Case(s)
3	Design the Approach + Framework
4	Collect Data + Information
5	Conduct Analysis
6	Develop + Deliver Actionable Recommendations
7	Guide Recommendation Implementation + Execution

vision for Smart Home as a Service|
An accessible, technology-agnostic platform supported by capable and engaging staff to facilitate Smart Home solution adoption, financing and connection to verified device providers.

Market Need|
*The smart home will probably introduce the next technology revolution, but has not yet met its potential, as **choosing devices with the right functionality and communication protocols to create an individualized smart home ecosystem is often too complicated for the casual consumer**. (Embedded Computing Design, 2016)*

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Market analysis questions to inform service design

	Zylter Tech Scouting + Assessment Process
0	A Compelling Commercial Technology Application
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Key questions for subject-matter experts:

BUSINESS	▪ What is your company's general role in the home device and installation space?
WORKFORCE	▪ What are the key knowledge, skills and abilities required for your field workers? ▪ How do you go about finding or training the people you need?
CHALLENGES	▪ What do you see as the key issues or challenges with current home installation services (cable, security, internet, device installation, etc.)?
MARKET OPPORTUNITY	▪ What opportunities do you see in emergence of smart home technology? ▪ What are the key features of the service needed to address these opportunities?
MARKET SELECTION	▪ What are the key factors you consider when looking at areas to expand to?

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1 | Smart Home IoT Service Competitive Landscape Analysis

	Amazon Smart Home Services	Google Home	Xfinity/Comcast	Best Buy	Atmos	Vivint (failing)	Angi Home Services	Task Rabbit	Key Trends + Observation (from comparables)	Competitive Implications for SaySo Service Design — Service Design	Competitive Implications for SaySo Service Design — Business Strategy
Hyperlink	https://www.amazon.co/b/ref=guru_abs_af_ln/ref=d?_acq_bw_lh_VASAH5SF_8_7s_w?tm=UTF8&node=14586916011&of_rd_m=ATVPDKIKX0DER&pf_rd_s=merchandised-search-	https://www.androidauthority.com/google-home-services-749968/	https://www.xfinity.com/learn/home-security	https://www.bestbuy.com/site/services/smart-home-services/pcmcat748300595063.c?id=pcmcat748300595063	https://atmoshome.com/	https://www.vivint.com/	https://www.angihomeservices.com/	https://www.taskrabbit.com/	Almost all major competitors are focused on selling Smart Home systems as a new product line of existing customers		
Summary Description	Amazon provides smart home design consultation and installation using Amazon technology and employee installers. Amazon also partners with homebuilders to install Amazon Smart Home solutions in new homes in select cities	Google sells the Google Home hub which controls connected IoT devices. Google does not offer its own IoT design, installation or services package at this time.	Enabling Smart Home management through their TV. Also developing next generation communication protocols and infrastructure for IoT devices. Services include technicians helping users get their IoT devices	Online and physical store sales of IoT devices compatible with major IoT controlling devices such as Alexa and Google Home Assistant. Geek Squad can help with home service call to install devices.	Creating (new startup has yet to ship) creating a IoT control hub that pairs with a large variety of IoT devices automatically. Marketed as plug and play immediately. No date given on when it is expected to be ready to ship.	The key to a piece of mind	Through a collection of brands creating the world's largest digital marketplace for home services, connecting millions of homeowners across the globe with home service professionals	The convenient & affordable way to get things done around the home			
Size (Gross Revenue)	$1.735B (Other Sales, 2017) [Ref 7]	$19.067B (est.) [Refs 1 & 2]	$54.2B (Est. 2018 Cable TV) [Ref3]	$42.15B	$1M Seed Funding	$889.5M	$1.132B (2018) [Ref 2]	$5.7M (2018) [Ref 1]	Significant size disparity between the established leaders that are entering in Smart Home services as an enabler and the early-stage companies focussed exclusively on SM devices		Size of existing competitors presents risks of quick replication of a service model once proven successful by SaySo > Few barriers to entry for major competitors (e.g., intellectual property or strategic relationships)
Industry	RESIDENTIAL + CONSUMER SALES	RESIDENTIAL	RESIDENTIAL COMMERCIAL	RESIDENTIAL SMALL BUSINESS	RESIDENTIAL	> Smart Home Security	RESIDENTIAL:	RESIDENTIAL: Handyman	Primary focus is IoT for the home with a smaller focus on commercial or small business applications	Potential opportunity to focus on the underserved small business (B->B) space instead of or in addition to the B->C market	
Additional Descriptive Info	> Amazon Smart Communities = Full IoT Kit Homes [4] > Amazon custom smart home design in areas where Amazon employees are available to do installation and service.	Current Product: Google Home to manage smart home devices. Former Product: Google Nest is no longer supported. Users will need to reconfigure their current smart home with new managing device	Working to enable customers to manage their IoT devices through their TV. Comcast is also working on infrastructure IoT communication with Semtech. [2]		[1] Atmos was first to market for the tech-agnostic touch screen single point of control CES 2018 - Google & Amazon had one by holiday [2] Mui Wood = Control Panel is a device category [3] Atmos $299 - not launched yet	Our Total Front Door package comes with professional installation and lets you control a doorbell camera, smart lock, and garage door from anywhere using our 4.5-star Vivint Smart Home app.	Similar to Ruby Corp (Ashley Madison) Patent Company of Multiple Targeted Service Brands [1] Home Advisor acquired Angie's list $500M+ 2017				
Key Partners	HOME SERVICES: Amazon employed technicians where available. Third party vendors for installation may be available in other areas on the home services marketplace. COMMUNITY DEVELOPMENT PARTNER: Lennar Construction [Ref. 6]	Manufacturers of IoT supporting Google Home capabilities. -Alarm.com -Fibaro -HIVE -IFTTT -LIFX -Lightwave -Nvidia -Sony -WeMo Among others	CONSUMER > "Works with Xfinity" August, Carrier, Chamberlain, ecobee, GE, Honeywell, Kwikset, Liftmaster, LIFX, Lutron, Nest, Netgear Arlo, Philips Hue, Danalock, Sengled, SkyBell, Tile, Yale, and Zen Ecosystems	Sell devices Provide aftersale service through Geek Squad.	Luminance Brands	Smart Home Device Control - first to market with agnostic device	HomeAdvisor acquired: Angie's List Handy HomeStars InstaPro MyBuilder.com MyHammer Travaux Werkspot CraftJack mHelpDesk	Interior Designer Influences - TARGET WOMEN Britt + Co Apartment Therapy Marie Claire Refinery29 Acquired by IKEA 2017	Each of the Controller manufacturers are working with major IoT platforms to ensure as much compatibility as possible (as well as cross promotion) Amazon is the only one partnering with home developers to create "Amazon Smart Communities" allowing the consumer to get a fully enabled smart home on the first turn of the key. Only offered in limited areas.	SaySo can leverage Talespin's XR technology (virtual human seems like a good choice) to develop a concierge service to help consumers design a Smart Home solution and guide them through install. > Features might include device identification that walks through instructions on how to install, will signal detection to determine placement and helps walk them through connecting to the wifi in a security minded way.	
Key Activities	1. Provide consulting services to design smart home solutions. 2. Sell Amazon products for the IoT solutions. 3. Sell and execute installation of smart home products purchased where available.	Hardware sales only through retail and online channels.	Direct hardware partnerships, with urban and enterprise infrastructure systems Xfinity Home App, TV is the control panel for the consumer.	Sell devices Provide aftersale service through Geek Squad.	Smart Home Device Control - first to market with agnostic device	Home security package and installation with human customer service	Electrical, handyman, HVAC, Carpet Cleaning, Landscaping, Pest Control, Painting, Plumbing Documentation activities, international markets	Interior Design Installation Services Mounting & Installation, Moving & Packing, Furniture Assembly, Home Improvement, General Handyman, Heavy Lifting, Shopping, Cleaning, Parties & Events	Amazon, Best Buy and Xfinity are the companies that offer company employed or contracted technicians to help set up IoT in your home. Amazon, Google, Xfinity and Atmos looking to control the IoT controller market. Partnerships with home contractors is an innovative move by Amazon to get Smart Home installation earlier in the residential supply chain (rather than just retrofit); similar to pre-install of security systems Opportunity to partner with ALL other developers out there.		
Key Resources	Amazon ecosystem of products, smart home consultants and full time installation employees where available.	Own the most used search engine resulting in their products getting highlighted.	Potential to corner the communication infrastructure protocols for IoT devices.	People can see the devices in the store and ask questions of live person.	> Harware Design + Development > Integration of software > Limited installation support	Humans, Hardware, First to Market	Investor networks of the Advisory Board	Social Media Influencers, Distributed Communities			
Cost Model	Salaries for consultants and installers. Opportunity costs in maintaining relationships with builders for built in Amazon Smart Home. Insurance to cover liability for any potential home damage by installers.	N/A	Initial and continuing engineering software for TV interface Certifying product compatibility with Xfinity controller Training technicians on how to hook up Xfinity control to users already installed IoT devices.	Purchasing and maintaining inventory of devices for direct sales. Maintaining and training staff to install and troubleshoot the Smart Home devices	Hardware COGS Manufacturing Salaries and Overhead	Subscription $39.99/mo includes hardware kit Service pays for hardware and in-person consult in 1yr 15% Service fee	$29/year subscription for accountability of service & reviews	"Taskers" choose their rates 1) Register online 2) Attend into session 3) Start Tasking 15% Service fee	Services are generally price low because they are more to enable sales and brand retention than as a key revenue stream		Key Question: Is there sufficient price elasticity among the priority segments of support a solely knowledge- and experience-based service offering?
Value Proposition	[2] FOR CUSTOMERS Upfront pricing for entire system. Knowledge that employee installers have had background checks and are trained in the installation of these specific devices.	N/A	FOR ENTERPRISE Hardware, software, knowledge guidance for directed innovation go-to-market FOR CONSUMERS One interface for TV, internet and IoT support. If users add IoT control to subscription technician will help them get setup.	Purchasing and maintaining inventory of devices for direct sales.	One device can talk to any IoT device across five different communication protocols. Expected to be completely plug and play assistant no matter what IoT devices are in the house. Only controller to support app, voice, gesture, and touch interface.	Only Differentiator from ADT Pulse security is the hardware tablet panel	"When I had a problem with a service provider, Angie stuck up for me" "Those who report on Angie's List have helped me make informed, logical, educated decisions."	1) Describe Your Task 2) Choose Your Tasker 3) Get it done	Atmos is the only company to offer controller that will talk over all protocols to make device discovery easy for endusers (if they ship).	SaySo has a unique value proposition focused on knowledge, impartiality and life-cycle relationships to help customers find the best personal solution in a crowded and growing landscape of Smart Home innovations. > SaySo is exanding customer options while most competitors are seeking to explicitly limit customer options (to a single family of devices)	
Customer Segments (or key locations)	Affluent Suburbanites in at least 8 states currently.	Tech saavy consumers who can integrate system themselves	Current and new cable customers in supported cities: Philadelphia, Chicago, San Francisco, Atlanta, Baltimore, Boston, Denver, Detroit, Indianapolis, Miami, Minneapolis/St. Paul, Oakland, Pittsburgh, Seattle.	Global sales via internet order (but only English interface to start)	USA - nationwide coverage Acting similar to Comcast		[3] New York, Houston, Chicago, Indianapolis, Boston, Atlanta, Cincinati, Los Angeles, Dallas, Pitsburgh, Minneapolis, Los Vegas, San Antonio, Tampa	Ann Arbor, MI; Atlanta, GA; Austin, TX; Baltimore, MD; Birmingham, UK; Boston, MA; Bristol, UK; Charlotte, NC; Chicago, IL; Cincinnati, OH; Cleveland, OH; Columbus, OH; Dallas, TX; Denver, CO; Detroit, MI; Durham, NC; Houston, TX;	Almost all services start with major metropolitan areas due to the generally early adoption and more advantageous conditions to scale the service		
Channels	Amazon.com Partner realestate developers Television advertising	Web Search Retailers (BestBuy, Staples, etc.)	> Direct marketing to existing cable and broadband customers > Television and print advertising	Website Kickstarter		Web Search "Home Security Solution" ADT likely spending more but both	Website, listings, search	Web search & App	Most SH service companies are looking to sell their offerings to customers within existing channels	SaySo does not have the benefit of existing channels and will need to "pick off" customers that already exist within the channels of major competitors (e.g. Amazon Prime)	
Customer Relationships	[5] Personal assistance over phone and in person.	Online store Authorized Retailers	Upgrades for current customers Human to Human - talk on phone, schedule call, appointment with technician.	None yet	1) On-call consult & Quote 2) On-call come to a final decision & order 3) In-person install 4) On-call service > or web wiki	Search listings, click to hire Real Results, Real People Background Checks Phone Support Angie's Guarantees*	Background checks Easy app management & scheduling		In general the established competitors are not seeking to establish new types of customer relationships, but to extend the current relationship to Smart Home services. For almost all competitors Smart Home service is only an enabler for application of their core capability within the Smart Home space (e.g. hardware)	SaySo is proposing a new, primarily knowledge-based relationship with the Smart Home customer that is the priority and more than enabler for another kind of revenue (e.g. Hardware sales)	Key Question: How much are customers willing to pay a premium primarily for expertise and relationship as a concierge -level service?
Revenue Streams	[1] Sale of Amazon branded hardware in the solution Service fees in design consultation and home installation.	Google device sales Long-term subscription fees	IoT Enabling Subscriptions for broadband customers. Possible licensing of IoT devices to ride on their communications infrastructure.	> most revenue comes from sale of hardware devices > Limited revenue Geek Squad labor	Device Sales Online	Subscription customer service	Freemium > Pay subscription for human consulting & service	15% of service fee	Sale of devices is the number one activity of all of the companies involved. The installation services act almost completely as the differentiators and enablers for expanded sales.	Primary revenue stream is service charges	
Additional Business Model Info	Amazon counting on consulting service to drive hardware sales. Customers more likely to purchase electronics products WITH service option	No indication of entering the service side of the IoT market soon.			Not sure how this is different than a voice assistant through mobile or home hub (Google, Amazon, and Apple have them)	Wiki/website is disfunctional Why does it exist? Clear need for assistance and Vivint can't handle the customer service demand despite $$$M revenues ADT seems to be higher quality service and comparable price point [1]		TaskRabbit for good - donate portion of service fee [4] Launched 2008, Angel $25K, Seed $1M, Seed $80K, ... total $37.5M funding, acquired by IKEA 9/17		Strategic Risk by Area: > HARDWARE (high): Demonstrated ability of major competitors to quickly replicate innovative hardware > SOFTWARE (moderate): Can develop novel AI-based applications, but requires access to significant data to "train" natural language processing > SERVICE (low/moderate): Likely significant space and demand in market to launch/grow a new service; likely competitors copy if model proves successful	

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2| Smart Home Service Design Blueprint

# STEP 3| SHaaS User Personas + Solution Use Cases

Purpose| Provide descriptive and contextual information required for assessment and prioritizations of user groups to address

Outcome| A set of user profiles to solicit feedback required for ##### market assessment and service design.
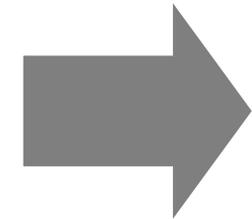
Affluent Nester
45-64 yrs

Social Climber
25-44 yrs

Urban Dweller
25-34 yrs

Family First
25-44 yrs

Traditionalist
45-64 yrs

Service Worker

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User Segmentation for SHaaS market analysis

Traditionalist

~$35K per year

45–64 years old

Big box/home improvement stores

Single family

Suburban/rural

Single/married with no children in house

Urban Dweller

~$40K per year

25–34 years old

Service providers/ online retailers

Apartment

Urban

Single/married with no children in house
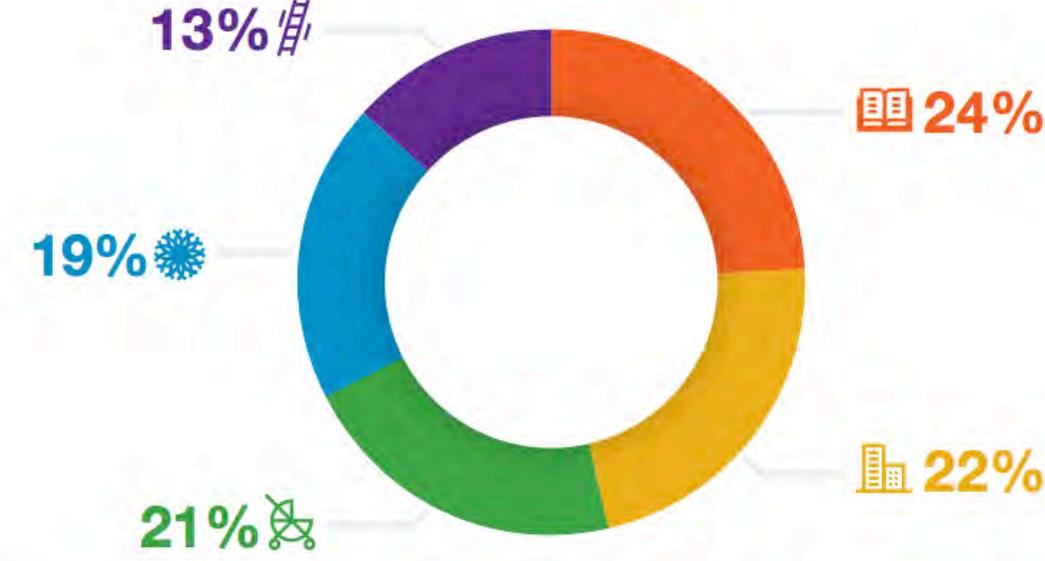
Family First

~$40K per year

25–44 years old

Online retailers/ service providers

Single family

Suburban

Married with 1–2 kids

Affluent Nester

~$75K per year

45–64 years old

Home improvement/ service providers

Single family

Suburban

Married with no children

Social Climber

~$100K+ per year

25–44 years old

Direct from manufacturer website

Single family

Suburban/urban

Married with 1–2 kids

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Service Worker

13% 24% 22% 21% 19%

8

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3.1a | User Persona 1: Affluent Nester

AGE	45-64	**KIDS**	Not at Home	**SERVICE PRESENCE**	Digital Mobile	
INCOME	75K	**PRIMARY SHOPPING**	Home Improvement	**PRIMARY BRAND**	Home Depot	
GENERATION	Gen X	**SECONDARY SHOPPING**	Service Providers	**SECONDARY BRAND**	Apple & Google	
MARRIED	Yes	**TOP CONCERNS**	1. Value 2. Quality 3. Performance	**SEEK INFORMATION**	1. Email 2. Online Search 3. Social Reviews	

FEELINGS	➢ Responsible Go-Getters ➢ Shrewd, Practical, Cynical ➢ Feel Made Mistakes with Kids & Tech
WHAT THEY BUY	➢ Primary: Food & Beverage ➢ Secondary: Apparel & Footwear, Personal Care, Household Care ➢ Luxury Product, travel, food, wine

APPROACH	➢ Reward Loyalty Through Email ➢ Appear as industry expert, product tutorials, practical advice ➢ Like free delivery, coupons, discounts, easy returns, reviews, loyalty points ➢ Receptive to traditional marketing ➢ Like to plan
ADDITIONAL NOTES	➢ Most Educated ➢ Spend the Most: Make purchasing decisions for Boomers & Gen Z ➢ Seeking to stand out, express individuality ➢ Facebook & YouTube Primary Social Networks

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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SOLUTION DESCRIPTION	Smooth online experience that enables planning, comparison shopping, social reviews, live-communication, and video demonstrations	TRL 7
		TRL 8
		TRL 9

EXAMPLE ILLUSTRATIONS (w/ hyperlink)

[How IoT Can Connect a Whole Family of Smart Homes Under One Roof](#)

USE CASE		
USER(S)	Affluent Nesters, Extended Family
SERVICE TASKS EXECUTED	Worker Service Tasks - Serve as the expert for informative, on-demand Q&A - Provide luxury offering = well dressed, timely, engaging in-person service
ORGANIZING STRUCTURE (BUSINESS MODEL)	Online "smart family" systems planning tools and distributed installer selector, video educational content
OPERATING ENVIRONMENT	Larger suburban and/or remote homes, older infrastructure, mesh-network and retrofit may be necessary

KEY VALUE / IMPLICATIONS FOR #####	**Complete family IoT systems planning and management, luxury product & on-demand, communicative service offering.**

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.2a| User Persona 2: Social Climber

AGE	25-44	**KIDS**	Yes	**SERVICE PRESENCE**	Digital Mobile	
INCOME	100K	**PRIMARY SHOPPING**	Direct from Manufacturer	**PRIMARY BRAND**	Intel	
GENERATION	Millennials (Gen Y)	**SECONDARY SHOPPING**		**SECONDARY BRAND**	Apple & Google	
MARRIED	Yes	**TOP CONCERNS**	1. Quality 2. Experience 3. Value	**SEEK INFORMATION**	1. Social Reviews 2. Physical Stores 3. Numb to Online Ads	

FEELINGS	➤ Confident, Optimistic ➤ Perceive selves as price conscious, frugal, deal seeking… but still make unplanned purchases ➤ Discerning Achievers ➤ Health Conscious ➤ Worry About Data Online
WHAT THEY BUY	➤ Environmentally friendly, green, organic ➤ Seeking authentic experiences vs. tangible products ➤ Customizable, Services

APPROACH	➤ Don't care about brands ➤ Like to Plan ➤ Prefer to try before buy at store - Retailtainment ➤ Smooth omnipresent Experience ➤ Buy on Smart Phones ➤ Understand Tech & Security Concerns
ADDITIONAL NOTES	➤ Sheltered upbringing, perceived by other generations as entitled & pampered ➤ Instagram Primary Social Network ➤ Happiest in cities and can afford to stay

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.2b | SHaaS Use Case 2: *Integrated + Seamless*

SOLUTION DESCRIPTION	Smooth Mobile-to-Brick & Mortar Experience that enables planning, comparison shopping, and try-before-buy	TRL 7
		TRL 8
		TRL 9

USE CASE	**USER(S)**	Social Climber and Kids
	SERVICE TASKS EXECUTED	Worker Service Tasks - In-store direct-from-manufacturer experience representatives - Build home system in-store and plan an install date with known rep - Service rep is the customer's touch-point, personalized, social service
	ORGANIZING STRUCTURE (BUSINESS MODEL)	Pop-up urban service center with product samples to try & compare, manufacturer representatives on-staff (Google and Apple).
	OPERATING ENVIRONMENT	Apartment/condo & town home tenants push for amenities including, concierge, fitness center, recreational areas, pet care, curated community garden, package room, live/work/play

KEY VALUE / IMPLICATIONS FOR #####	**Personalized, local, social service experience from feature comparison, systems planning, try, to buy, and install.**

EXAMPLE ILLUSTRATIONS (w/ hyperlink)

[Amazon Alexa Smart Home Pop-up](#)

Fall 2018

[Pop-Up Shop Layout Tips: How to Design an Unforgettable Experience](#)

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.3a| User Persona 3: Urban Dweller

AGE	25-34	**KIDS**	No	**SERVICE PRESENCE**	Digital Mobile	
INCOME	40K	**PRIMARY SHOPPING**	Service Providers	**PRIMARY BRAND**	Google & Apple	
GENERATION	Young Millennials (Incoming Gen Z)	**SECONDARY SHOPPING**	Online Retail	**SECONDARY BRAND**	Amazon	
MARRIED	No	**TOP CONCERNS**	1. Quality 2. Price 3. Novelty	**SEEK INFORMATION**	1. Gen X 2. Online/Brand Website 3. Retail Store is Social Activity	

FEELINGS	➢ Aspirationalists ➢ Expect an experience ➢ Want to know feedback is heard ➢ Interaction with brand important ➢ Perceive selves as sophisticated, want new
WHAT THEY BUY	➢ Primary: Apparel & Footwear, Personal Care, Household Care, Video Games, Unplanned ➢ Tertiary: Food & Beverage

APPROACH	➢ Low tolerance for poor experience quality ➢ Straightforward, easy to navigate ➢ Mixed reality is cool, eager to try new things ➢ Don't plan spending & spend more than planned ➢ Receptive to traditional advertising ➢ Participate in online communities – seek relationships
ADDITIONAL NOTES	➢ Interest in customization, sustainability, innovation, environment-friendly, organic

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.3b| SHaaS Use Case 3: *Tech-Savvy Gig Help*

SOLUTION DESCRIPTION	Event-based, social buzz, buy-with-friends, prestige/branded experience with easy-to-upgrade and try new devices/add-ons	TRL 7
		TRL 8
		TRL 9

USE CASE		
USER(S)	Urban Dwellers and Friends
SERVICE TASKS EXECUTED	Worker Service Tasks - Experience curators - Feedback collectors & responders - Excitement stokers - Community Builders/Reps
ORGANIZING STRUCTURE (BUSINESS MODEL)	Pair IoT offerings with local business, social, and environmental initiatives and temporary, tech-heavy, loud, lit, popup events. Pay-now, quick delivery, self-install.
OPERATING ENVIRONMENT	High density, urban cores, party

EXAMPLE ILLUSTRATIONS (w/ hyperlink)

[Amazon is placing 25-foot Boxes in Major Cities to Get You Excited about Prime Day](#)

Holiday 2018

[Google Assistant Playground](#)

CES, 2019
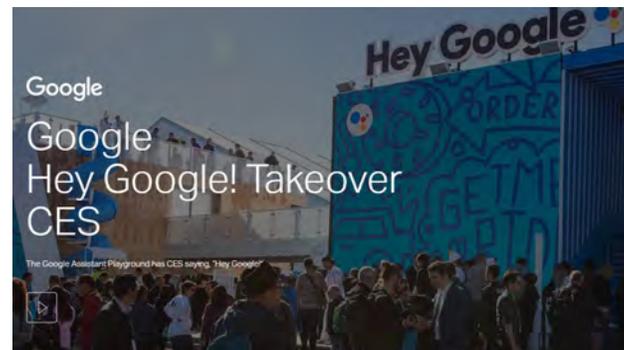
KEY VALUE / IMPLICATIONS FOR #####	**Curated, event-based, branded, experiences highlight the latest technologies and encourage temporary, buy-now offering.**

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.4a| User Persona 4: Family First

AGE	25-44	**KIDS**	Yes	**SERVICE PRESENCE**	Digital Mobile
INCOME	40K	**PRIMARY SHOPPING**	Online Retail	**PRIMARY BRAND**	Amazon
GENERATION	Millennials (Gen Y)	**SECONDARY SHOPPING**	Service Providers	**SECONDARY BRAND**	Apple & Google
MARRIED	Yes	**TOP CONCERNS**	1. Quality 2. Value 3. Safety	**SEEK INFORMATION**	1. Social Reviews 2. Physical Stores 3. Numb to Online Ads

FEELINGS	➤ Perceive selves as price conscious, frugal, deal seeking… but still make unplanned purchases ➤ Responsible Go-Getters ➤ Most confident with screen-less "family devices" – especially if reduce screen use, must educate kids on tech ➤ Very weary of connected toys – Germany banned kids smart watches
WHAT THEY BUY	➤ Primary: None ➤ Secondary: Apparel & Footwear, Personal Care, Household, Unplanned ➤ Tertiary: Food & Beverage
APPROACH	➤ Don't care about brands, Less Planned ➤ Prefer to try before buy at store - Retailtainment ➤ Smooth omnipresent Experience, Buy on Smart Phones, Instagram Primary Social Network ➤ Gap between rich (discourage tech use for kids) and poor (more mobile as primary computer in schools)
ADDITIONAL NOTES	➤ Sheltered upbringing, perceived by other generations as entitled & pampered ➤ Moving to suburbs by necessity. Amenities in demand = access to mass transit and walkable neighborhoods in proximity to shopping and entertainment

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.4b| SHaaS Use Case 4: *Friendly + Trustworthy*

SOLUTION DESCRIPTION	Smooth Mobile-to-Brick & Mortar Experience with, complete home system package, try-before-buy, safety priority

TRL 7
TRL 8
TRL 9

USE CASE

USER(S)	Family First, Kids, and Relatives
SERVICE TASKS EXECUTED	Worker Service Tasks - Pick (scan QR) a home system in-store and select from install date options through app - Virtual service, conversational Q&A - App-scheduled install from licensed, trusted, local provider
ORGANIZING STRUCTURE (BUSINESS MODEL)	Grocery access and "junior box" is the primary growth driver for suburban shopping cores. End-cap complete system selector display, examples of tech to touch & engage with children.
OPERATING ENVIRONMENT	Live/Work/Play planned community with tiered large-family to town homes with plenty of green space, friendly neighbors, SUVs, and trendy decor

EXAMPLE ILLUSTRATIONS (w/ hyperlink)

Amazon Alexa Housing Partnership w/ Lennar

Spring 2019
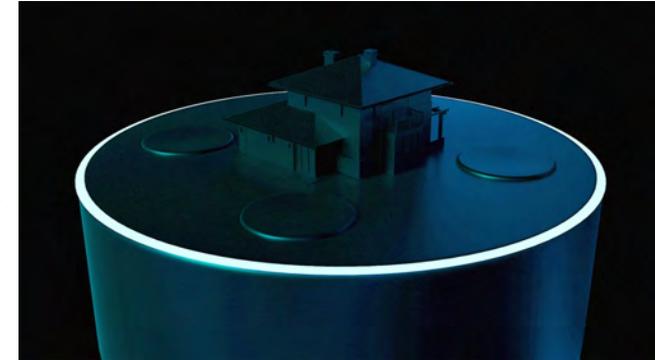
63%	65%	66%	70%
willing to download a retailer or loyalty app	willing to use a self-checkout	willing to log in to store wi-fi to receive info or offers	willing to use handheld scanners as they shop

Why Grocery Stores are Adding IoT to the Shopping List

KEY VALUE / IMPLICATIONS FOR #####	**Efficient, planned package selection, with timely Q&A, and scheduled install from licensed, local provider**

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Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.5a| User Persona 5: Traditionalist

AGE	45-64	**KIDS**	Not at Home	**SERVICE PRESENCE**	Physical Desktop
INCOME	35K	**PRIMARY SHOPPING**	Big Box	**PRIMARY BRAND**	Walmart & Costco
GENERATION	Gen X	**SECONDARY SHOPPING**	Home Improvement	**SECONDARY BRAND**	Home Depot
MARRIED	Yes	**TOP CONCERNS**	1. Price 2. Price 3. Price	**SEEK INFORMATION**	1. Traditional Media 2. Don't enjoy online shopping 3. Not engaged on social media

FEELINGS	➢ Pragmatists, frugal ➢ Not enthusiastic, conservative, consistent, complacent with the status quo
WHAT THEY BUY	➢ Store Brands

APPROACH	➢ Least buying power, living on tight budget ➢ Like to plan
ADDITIONAL NOTES	➢ Least interested in innovation, personalization, health, sustainability, environment-friendly, organic

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.5b | SHaaS Use Case: *Simple + Secure Support*

SOLUTION DESCRIPTION	Big-box store end cap, value-based selection, money saving, buy now and plug-in or turn on to save	TRL 7
		TRL 8
		TRL 9

<table>
<tr><td rowspan="4">USE CASE</td><td>USER(S)</td><td>Traditionalists</td></tr>
<tr><td>SERVICE TASKS EXECUTED</td><td>Worker Service Tasks
- Free offers entice/keep attention
- Straightforward, honest answers
- Emphasize savings/value-add</td></tr>
<tr><td>ORGANIZING STRUCTURE (BUSINESS MODEL)</td><td>Trained retailer/store-branded employee, offer least expensive, easy-to-self-install products don't require new infrastructure to save customers money (ex. outlet energy monitors), give-away with purchase</td></tr>
<tr><td>OPERATING ENVIRONMENT</td><td>Outer suburbs or rural, old infrastructure, spotty internet, target towns investing in decentralized energy/information infrastructure</td></tr>
</table>

KEY VALUE / IMPLICATIONS FOR #####	**Uninterested buyers need to know that their purchase will save them money, and they don't want to spend to do so.**

EXAMPLE ILLUSTRATIONS (w/ hyperlink)

[Internet of Things America](#)

Increase Yields.
Boost Productivity.
Enhance Quality of Life.

[How Co-Ops Are Bringing Solar Power to Rural America](#)

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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AGE	25-34	KIDS	No	SERVICE PRESENCE	Digital Mobile
INCOME	38K				
GENERATION	Young Millennials (Incoming Gen Z)				
MARRIED	No	TOP CONCERNS	1. Insufficient Pay 2. Healthcare 3. Career Advancement		

FEELINGS	➤ Feel work harder for income than those in traditional jobs – must run all aspects of business alone, more weight on mistakes ➤ Finding work in chosen field is challenging, multi-skilled by necessity, "just a job", don't care, lack of career path, feel stuck, lack of resources for training ➤ High anxiety about money, lack of benefits, insurance, disability, sickness ➤ Dependable, enthusiastic, self-disciplined, extraverted, open to new experiences

APPROACH	➤ If seeking high quality work – offer fair market pay ➤ Leverage workers as creative way to add value, not cut costs, engage workers in company culture ➤ Provide project-based opportunities for incremental skill growth ➤ Why Employees Leave: Avoid last-minute, short-term, long hours, unreasonable deadlines ➤ Building a Business ➤ More likely to break rules, emotional agility, work hard
ADDITIONAL NOTES	➤ Primary job more likely to be Men, Hispanic, and African American ➤ Secondary job more likely to be women ➤ More likely supported by partner or have housemate

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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3.6b| SHaaS Use Case 6: Flexible Gig Workforce

SOLUTION DESCRIPTION	Incentivize quality work with market rates, provide training for clear growth path & loyalty, offer options for benefits & raises	TRL 7 / TRL 8	**TRL 9**

USE CASE		
USER(S)	Young Millennials (Incoming Gen Z)
SERVICE TASKS EXECUTED	Worker Benefits - Technical, Sales, & Business Training - Discounts/Product Offers as Local Brand Reps/Influencers - Benefits Package for Long-term Service & Loyalty - Clear growth path with raises
ORGANIZING STRUCTURE (BUSINESS MODEL)	On-demand and scheduled installs, offer preferred working hour and location options at fair market pay.
OPERATING ENVIRONMENT	Urban areas with less than 30min travel time (consider gas compensation) to maximize hours.

EXAMPLE ILLUSTRATIONS (w/ hyperlink)

[College Hunks Hauling Junk](#)

[Apple Genius Bar](#)

KEY VALUE / IMPLICATIONS FOR #####	**Community relationship builders & technical experts for trusted, quality service, installation, and long-term care of IoT systems.**

Affluent Nester 45-64 yrs

Social Climber 25-44 yrs

Urban Dweller 25-34 yrs

Family First 25-44 yrs

Traditionalist 45-64 yrs

Gig Service Worker

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Recommended prioritization of personas + use cases for ##### to pursue

	USER GROUP
1 |	**Affluent Nester** 45-64 yrs
3 |	**Family First** 25-44 yrs
2 |	**Social Climber** 25-44 yrs
4 |	**Urban Dweller** 25-34 yrs
5 |	**Traditionalist** 45-64 yrs

Purpose| Prioritize use cases to guide identification of priority features for ##### planning and development

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Strategic factors for prioritization of groups for ##### development

	USER GROUP	SHARE OF US MARKET	DISPOSABLE INCOME	COMFORT WITH SMART HOME TECHNOLOGY	WILLINGNESS TO OUTSOURCE SMART HOME SERVICE
1	**Affluent Nester** 45-64 yrs	19%	**HIGH**	LOW	MODERATE
3	**Family First** 25-44 yrs	21%	MODERATE	MODERATE	**HIGH**
2	**Social Climber** 25-44 yrs	13%	**HIGH**	MODERATE	**HIGH**
4	**Urban Dweller** 25-34 yrs	22%	LOW	**HIGH**	MODERATE
5	**Traditionalist** 45-64 yrs	24%	MODERATE	LOW	LOW

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Additional Information

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Smart Home Installation: Journey

1| FREE CONSULTATION
A smart home expert visits your home to discuss your needs and provides advice on the options available, along with examples from other #### Stories.
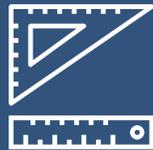
2| ESTIMATE
From this initial discussion, the entire project is costed up and a comprehensive breakdown of costs – including design, equipment and installation – is presented for your consideration.
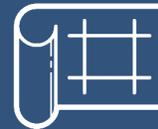
3| DESIGN
Once the basic framework for the smart home is established, the design team fills in the blanks and turns the idea into a reality, ensuring the various systems will work together flawlessly.

4| VISUALIZATION
For more complex or ambitious projects, a virtual reality experience is created so you can exactly see how your project will look once it is created.

5.|PREPARATION
If the property needs to be wired, all cabling will be prepared, made off into plugs and sockets and tested.

Off-site, all equipment will be prepared for installation.

6.|INSTALLATION
Once the property has been plastered and the site is dust-free, all equipment, control systems, TVs, and keypad will be installed.

7.|COMMISSIONING + SIGN-OFF
All systems will be programmed and thoroughly tested to ensure they are working perfectly, before the project is signed off and an engineer walks you through how the system works.

8. AFTER CARE
A competent smart home specialist will offer support and maintenance contracts for any critical issues, fixes or updates that might be necessary in future.

Source: Andrew Lucas London

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Smart Home Installation: Costs

DIY
Some off-the-shelf elements – such as some wireless smart cameras or Phillips Hue smart bulbs – can be installed piecemeal and controlled by a dedicated app. However, joining these together isn't always easy to achieve and requires further knowledge of home automation.

DIFM (Do it for me)
Products such as Fibaro and Qmotion shades could be installed by homeowners, but often is it is better to bring in someone with specialist knowledge to install the system for you.

PROFESSIONAL INSTALLATION
For anything ranging from a fully integrated climate control or a graded smart security system to integrated control of multiple systems, the only feasible option is to bring in a qualified installer to design and install a whole-house system.

BESPOKE INSTALLATION
For properties with unique environmental challenges or specialist technological requirements, choosing a smart home company with extensive experience in crafting unique solutions ensures an installation that remains sensitive to both the construction and interior design.

Service Pricing

DIY	<$5K
DIFM/ Advanced DIY	$1-10K
Professional Installation	$10-100K
Bespoke Installation	$100K+

$500 $1K $2K $5K $10K $25K $50K $100K+
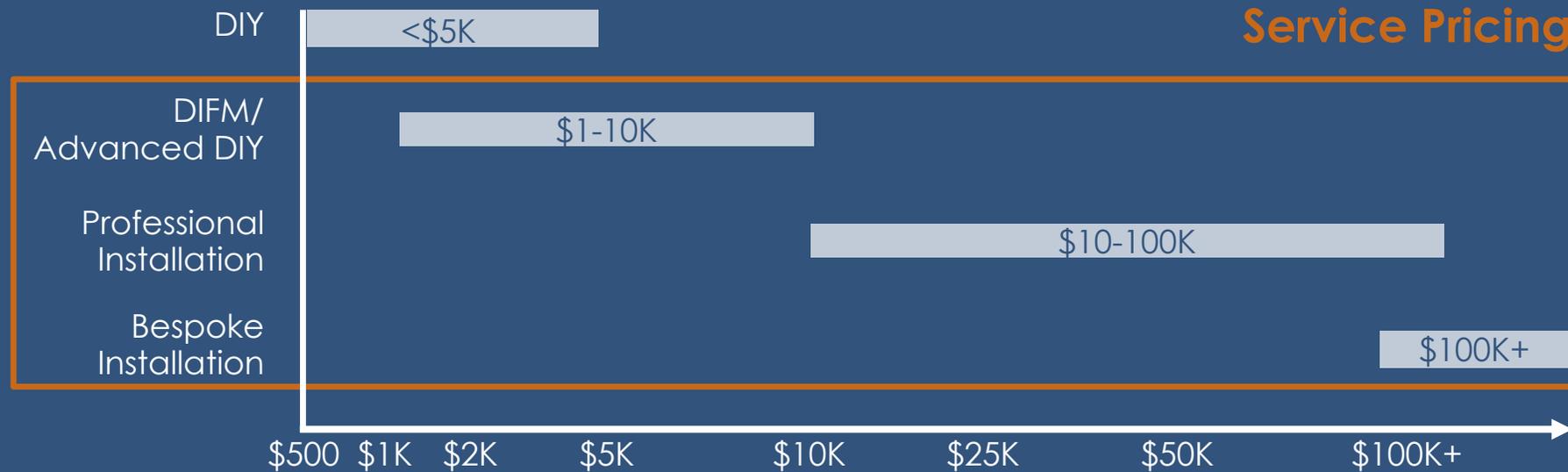
Installation = 40% of Project Cost

Andrew Lucas London

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