SmartAcess

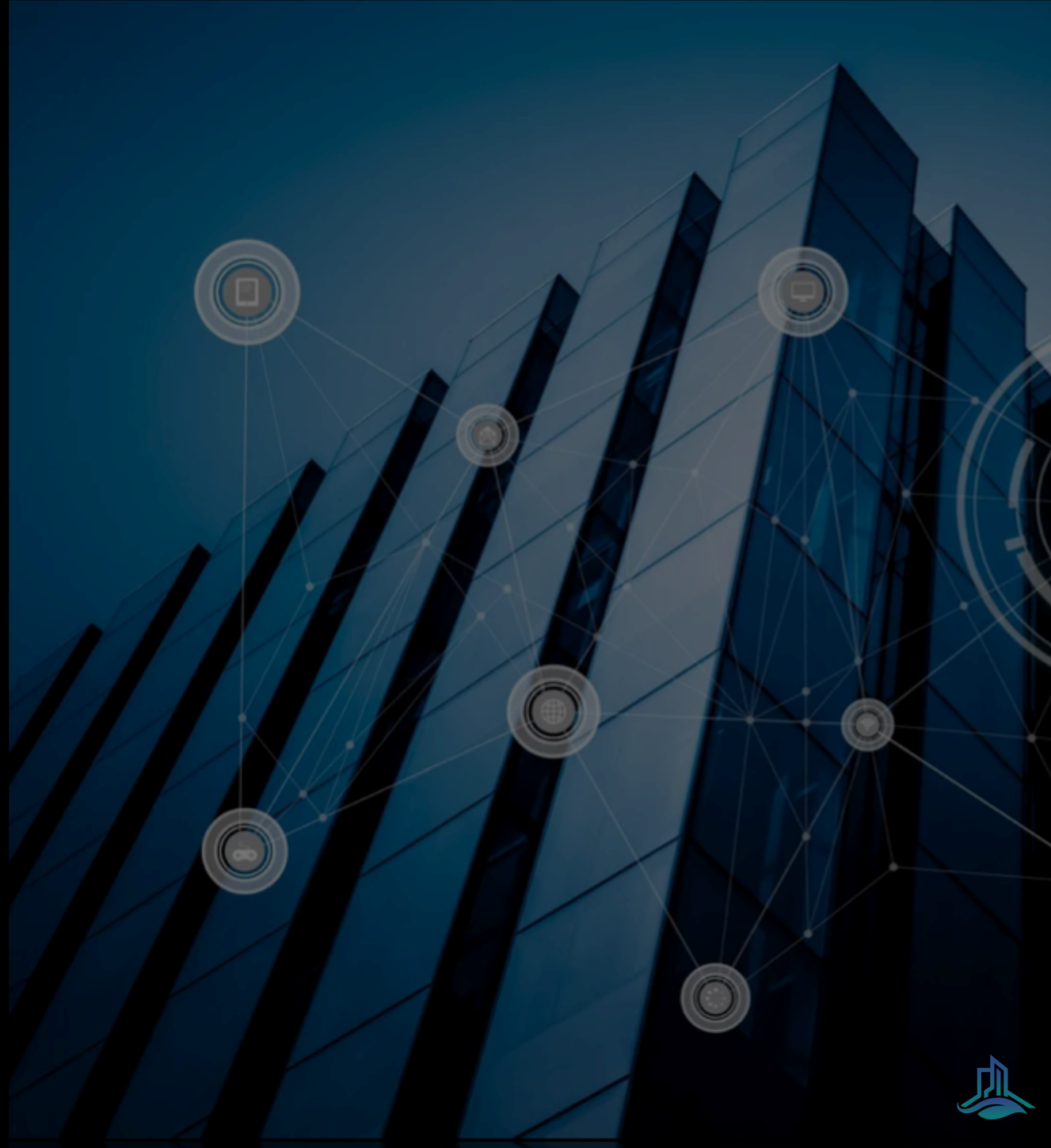
Intelligent Habitats for a Green Future

SMARTACCESS

Intelligent habitats for a green future

Agenda

- Current Market
- Market Opportunity
- Our Vision
- SmartAccess Tech
- Smart Access Business Model
- Roadmap
- Whole Offer
- Appendix



40% & 30%

40% of Energy Consumption in the US is from buildings
30% of Energy consumed in commercial buildings is wasted

Smart Building Tech - Current State

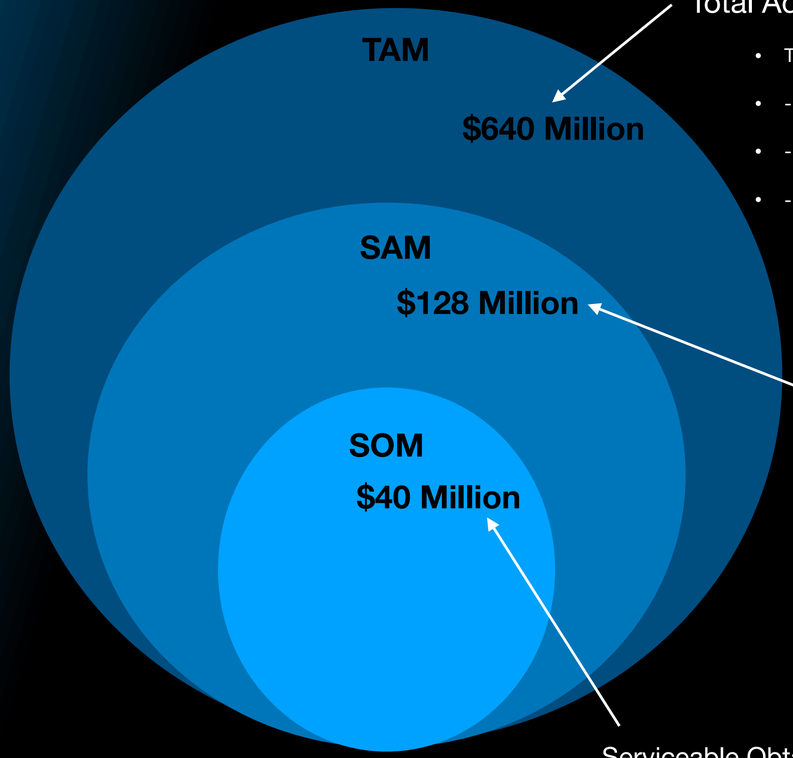
Smart is Not Intelligent or actionable

Current Solutions

- Doesn’t solve resource utilization inefficiency
- Cannot measure or track
- Cannot take Intelligent, Automated Decisions
- Expensive and not accessible
- Haven’t adopted new technology (AI/ML)
- Hard to use for Tenants and Building Staff

Market Opportunity

Smart Building Market Size



Total Addressable Market (TAM)

- Top populated cities in the world (80)
- - 100 buildings per city
- - 8000 building
- - TAM = 8000 X $80,000 = $**640 Million**

Serviceable Addressable Market (SAM)

- Only selecting cities in OECD countries
- - 16 cities with 1600 buildings
- - SAM = 1600 X $80,000 = $**128 Million**

Serviceable Obtainable Market (SOM)

- Narrow down to North America region
- Select 5 C40 Climate change Pact cities (500 building)
- SOM = 500 X $80,000 = $**40 Million**

Assumptions

- Selected Cities as they are more likely to consume Smart Building services
- Only selected highly populated cities
- Market sized for 100 (high rise) building in each city

SOM FAQ

- Why only C40 (c40.org) Cities?
  - C40 cities have dense population centers and are motivated to solve climate change
- Why only 5 C40 Cities in North America?
  - Picked the 5 cities in North America Region because they are densely populated and are progressive (already educated about climate change)
  - Los Angeles, San Francisco, Toronto, Vancouver, New York City

Note: TAM Market is lot larger, SaaS revenue (ARR) computed based on number of tenants (+ features + hardware component), estimate for smaller size buildings. Market expansion possible when including mid rise buildings and high rise buildings.

“Create Intelligent and Safe Habitats for everyone in the world for a greener tomorrow”

SmartAccess

SMART HABITATS FOR A GREEN FUTURE

SmartAccess Mission

Mission & Values

- **What we do**
  - **Democratize** Smart Building Technology
    - Make it **“accessible & affordable”** to all buildings (regardless of size)
  - Intelligent Buildings where everyone works and lives
  - Efficient utilization of resources, with measurable KPIs to track and adjust
  - Make it easy and convenient for tenants to live/work safely
- **How we do it**
  - Utilize low cost **“off the shelf”** (IoT, Wifi) and **“existing systems”** to reduce cost and time
  - Provide advance security and predictive analysis capabilities using AI/ML
  - Encourage User behavior towards sustainability by providing visibility
- **Outcome and Impact**
  - Reduce Carbon footprint (Greener Planet)
  - Cost saving for tenants and ROI for Building owners
  - Effect Culture change

SMARTACCESS

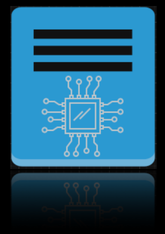
Intelligent habitats for a green future

SmartAccess

What are we building

Building Control Center (SaaS)

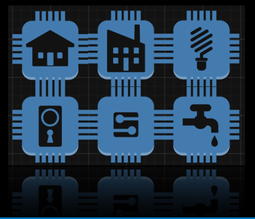
Mobile App (Tenant + Staff)



Hardware Edge Controller

Intelligent Building Platform

Camera + Wifi Systems



Building IoT Devices

Integrations

Data + AI/ML Capabilities

Data Platform

Why SmartAccess

Why are we unique

- **SmartAccess provides “End to End” solution**
  - Building Owners to Staff to Tenants to all the connected devices
- Actionable Intelligent Analytics Platform
- Unique SaaS + Lease business model
- Use Existing Infrastructure (cheaper)
- **Advanced AI/ML based capabilities**
- Highly Secure (Safety & Privacy)
- Ease & Convenience for Tenants
- Cool Factor
  - virtual key entry, security camera feed, auto-shutoff etc.,
  - Efficient electric car charging, scheduling & notification

End to End Solution

Business Model

SaaS + Leased + Add-ons

Base Price

- Building Control Center (Cloud SaaS) Includes
  - SaaS Licenses for Units in the Building
  - Hardware Edge Controller
  - Number of Devices Discovered and Monitored
  - Number of Mobile App Users - Tenants
  - Number of Mobile App Users - Maintenance Staff

Additional Licenses Cost

- Number of Units in the Building
- Number of Mobile App Users
- Number of Devices Discovered

Add-Ons

- AI/ML Solutions License Add-on *(1)
  - Facial Recognition
  - Predictive Maintenance
  - Smart Resource Utilization
- Data Storage Cost *(2)

Bundle Pricing	Build Controller Edge Controller	Building Units	Number of Devices			Tenant App	Staff App	Price	
			Tier 1 (Camera)	Tier 2 (Wifi)	Tier 3 (IoT)			MRR	ARR
Small	**$5000.00**	**100**	**20 x $50**	**10 x $25**	**250 x $1**	**100**	**5**	**$6500.00**	**$78000.00**
Medium	$10000.00	500	100 x $50	50 x $25	1000 x $1	500	25	$17250.00	$207,000.00
Large	$20000.00	1000	500 x $50	100 x $25	2000 x $1	1000	50	$49500.00	$594000.00

Base Bundle Pricing shown

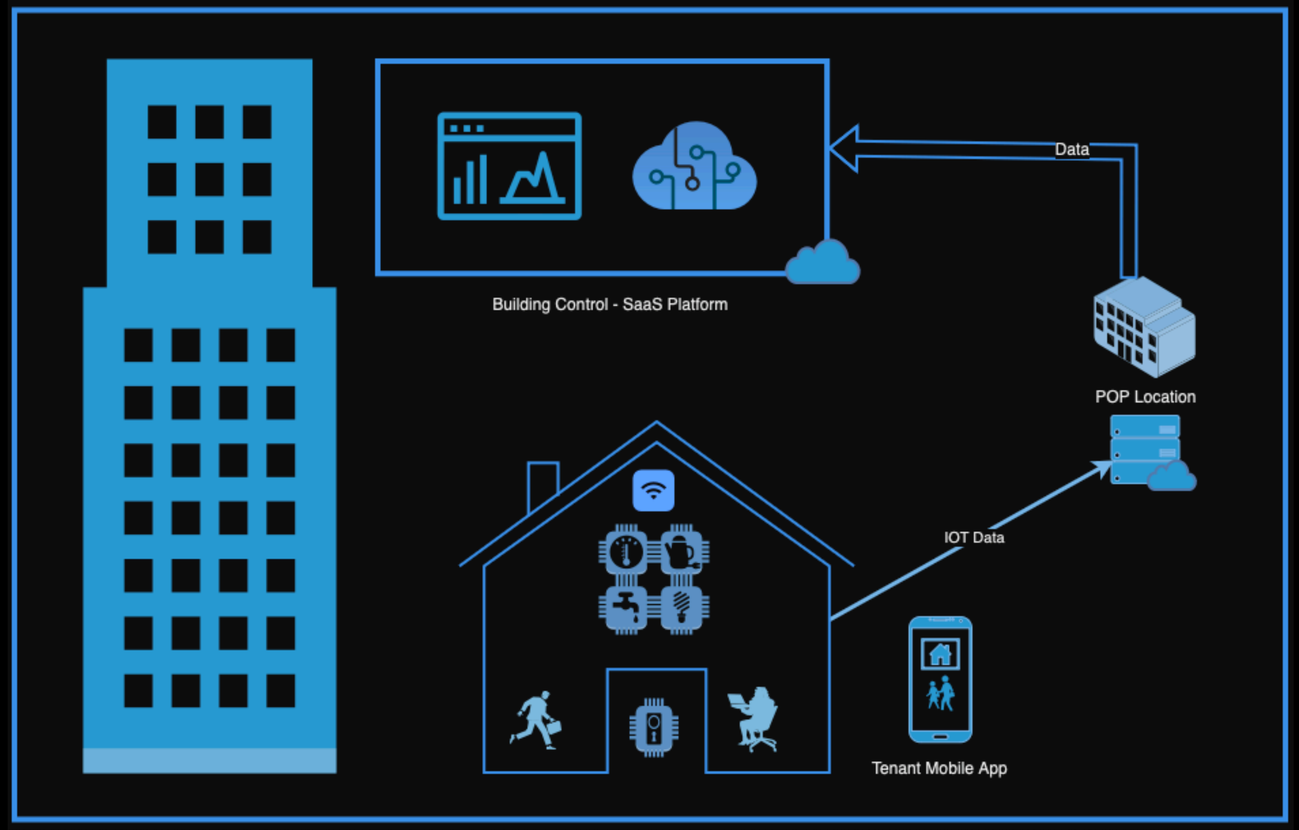
1. AI/ML Pricing not determined 2. Data Storage cost varies with usage

Note: SOM Pricing based on Small Footprint ARR value

Minimum Viable Product (MVP)

What we have built - Proof of concept

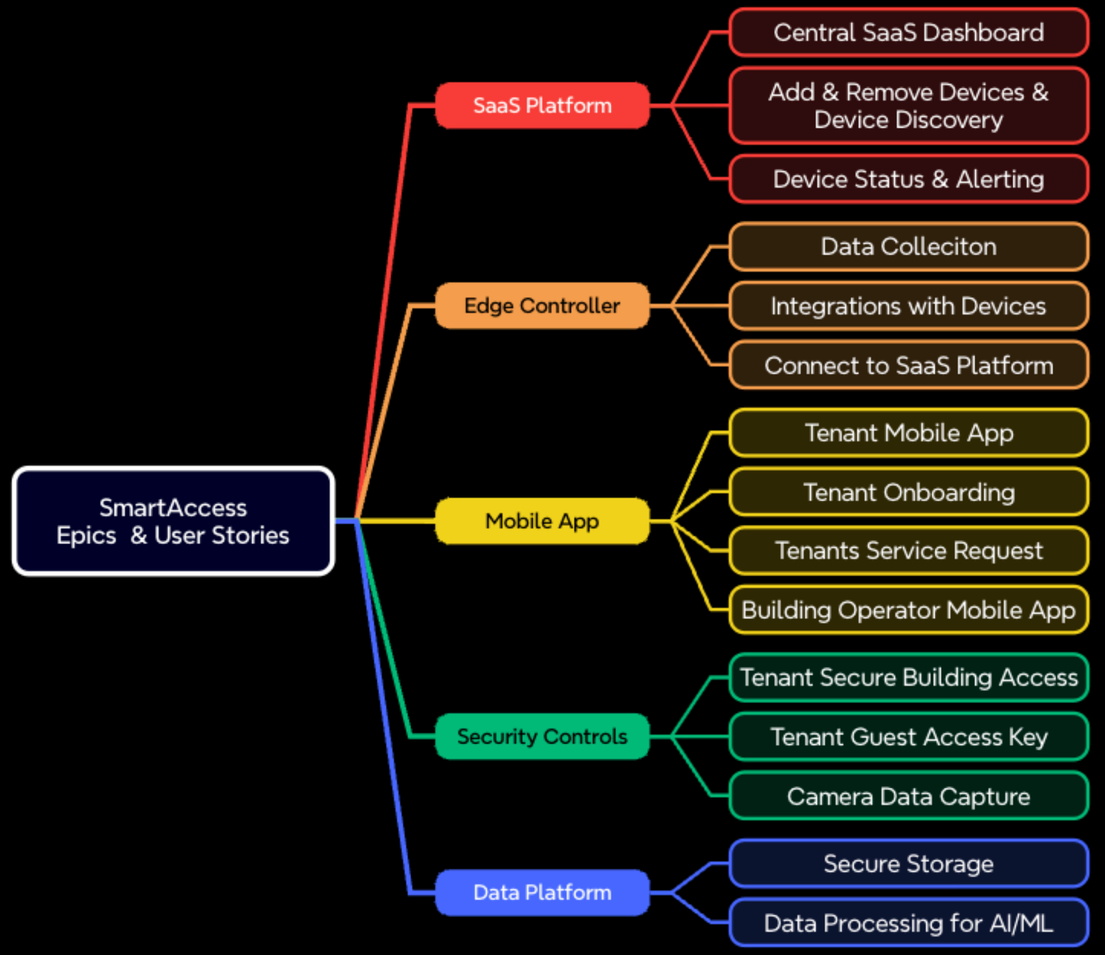
- SaaS Analytics Dashboard (Building Managers)
- Mobile Application (Tenants)
- Monitoring with Existing Wifi + IoT Sensor
- Provide visualization for Usage trends and Cost



Roadmap - 1st Release (Q4)

Features

- Building Control SaaS Analytics Platform Ready
  - Scalable to 100 buildings
- Edge Controller Ready
- Edge Controller Integrated with 1st set of Devices
  - Integration with Wifi, Camera, HVAC and IoT systems
  - Testing done and Certified
- Mobile App Ready (Tenants and Building Staff)
  - On-boarding, Notification, Ability to perform basic functions
- Security Controls Ready
  - Tenant entry/exit with Phone ready
  - Camera data captured and stored
- Data Platform Ready
  - Secure way of Storing and Retrieving Data

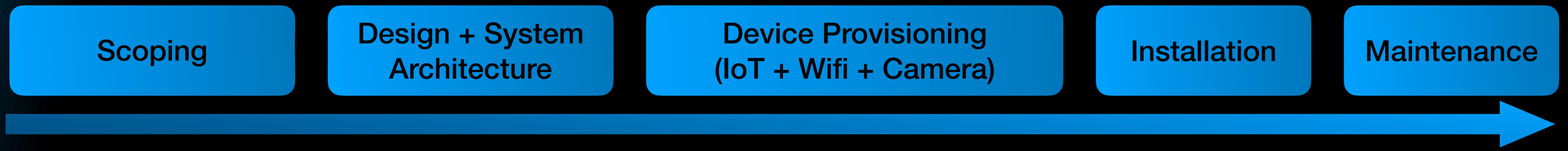


Outcomes - 1st Release (Q4)

- On-boarding real customers
- Deployed successfully in 5 Buildings
- Platform Generating Revenue
- Ability to track user experience
- Data Acquisition
  - Data Collected from IoT devices
  - Usable Data for AI/ML modeling

SmartAccess - Whole Offer

Smart Access Needs the following functions to create a whole offer



- **Scoping of Work**: Consulting Partners
- **Design and Architect**: Consulting Partners
- **Device Provisioning**: System Integration/Manage Service Providers
- **Installation:** System Integrators/Manage Service Providers
  - Partners install SmartAccess + Building Devices (IoT, Wifi, Camera)
- **Maintenance**: System Integration/Managed Service Providers

SmartAccess will Identify and train **5 Partners** that customer can works with

Thank You

SMARTACCESS

Intelligent habitats for a green future

Appendix

- Persona
- Jobs To Be Done (JTBD)
- Wireframes
- Complete Roadmap

Persona (end-user)

Persona Name: Alexandra (Alex) Martinez

Profile

- **Job title**: Sr Consultant
- **Job Role**: Sr Sustainability Consultant
- **Responsibilities**: Works for a sustainability non-profit, advising companies on how to achieve Net Zero carbon emission
- **Age**: 44
- **Education**:Masters Degree
- **Experience**: 16 year of non-profit experience in the sustainability space
- **Geography**: Dallas, TX
- **Company Size**:100+ (Small to Mid)

Goals

- **Jobs to be Done** – Help companies achieve net-zero carbon emission, not by just buying carbon credits, but by changing business practices to attain sustainability.
- **Success definition** – Make a dent in the carbon foot print of businesses. Make 100 businesses change their process and attain net-zero by 2040 a full 10 year ahead of time, hence impacting global change.
- **Personal goals** – Be a good role model for her 13 year old son and leave the planet a better place. Take care of her family, especially aging father. Lead a healthy life-style

Challenges

- **Pain points** – Caring for an aging parent has its own challenges, can't focus on spending time with her son, especially on his education. Son turning into a teen has it's own challenges and husband travels for work and does Alexandra
- **Worries** – Her son's education, the planet, save money to buy a house
- **Time Wasters** – Lots of work related activities outside of working hours (fund raising etc.,)

Personality

- **Demeanor** – Relentless, Positive, Curious and Restless
- **Personality traits:** Stubborn, Honest, Loyal
- **Values** – Family, Health, Equity, Education

Information Sources

- Media consumption – NPR, Internet, lots of environmental news sources
- Watering holes – Fund raising parties and office happy hours
- Social networks – Instagram, Twitter and Facebook
- Influencers – Michelle Obama, Greta Thunberg, Elizabeth Wanjiru Wathuti, Bernie Sanders
- Professional associations – Professional Sustainability Association, AASHE

Bio

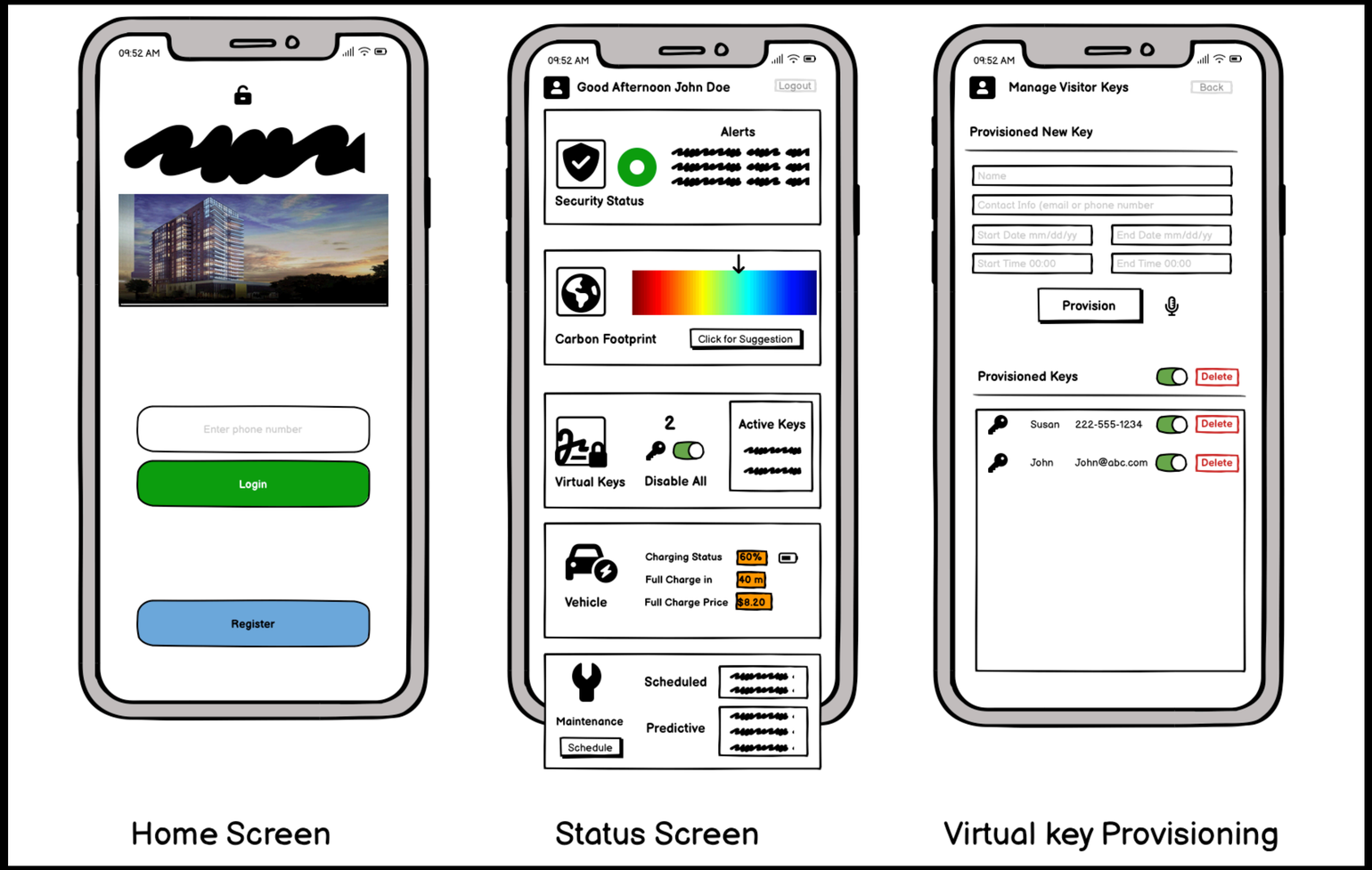
- Alexandra's activist roots started when she graduated college with a political science degree and was moved by the movie An Inconvenient Truth. Alex moved to Washington DC to impact environmental change by working her way in politics. Alex was disillusioned by how the government worked. Alex moved on to working for non-profits that supported clean energy and sustainability. Alex is very passionate and has gained a great reputation in the sustainability space. She travels a lot for work and uses social media to get information about current events, also listens to public radio a lot. Apart from work, she raises money for all causes related to environment and to reduce global warming. Alex values education and wants her son to get a good education, not being able to focus on helping with his education is a major pain point, she tries her best teaching as much as possible and providing tutors as well. She is a family oriented person who is taking care of her dad in his old age after her mother passed away. Her social activities related to environmental causes takes up her time. Alex goes for a run very religiously which is her form of meditation. Taking care of her son and dad is the most important thing, her husband helps out as much as possible. Alex is a busy person on whom her whole family relies on.

Jobs to be Done (JTBD)

- **1: When I come home, I want an easy way for me to be identified, so I can get into my building quickly and easily**
- **2: When I leave home, I want to be confident, that entry points are secured & locked automatically, so my belonging stay safe**
- 3: When I leave my building I want an automated way to reducing waste by automatically shutting/switching off any resources that I may have left switched on, so I can be worry free about not leaving anything switched on (especially gas stove)
- **4: When I am staying home, I want security and authorities (fire and law enforcement) to be alerted on legitimate threats (from people, fire, gas leak etc.,), so they can respond accordingly and I be notified appropriately**
- 5: When I stay home, I want the building to detect and diffuse any hazards (like fire or gas leaks etc.,) automatically, and beyond that to notify a fire service and alert me
- 6: When I want to let someone that I know into the building (one time or for a duration), I have an easy way to achieve this with out the hassle of security
- 7: When I live in my building I want water to be conserved and have an efficient recycling mechanism, so water doesn't get wasted and we save money and the environment
- 8: When I live in my building I want the power consumption of the building to come from renewable energy as much as possible so the environment is protected and cost lowered for me
- **9: When I bring my electric car home, I want to be able to charge my car for free (from renewable sources), so I can drive a electric car and protect the environment**
- **10: When I live in my building, I want an easy way to schedule maintenance, so I don’t have to worry about waiting for things to get repaired**
- 11: When I live in my building I want to be able to easily view my usage patterns so I can adjust my behavior
- 12: When I live in my building, I want to be able to get information about things happening in my community, so I stay informed

Wireframes

Home Screen + Status Screen + Virtual Key Provisioning



Roadmap - Detailed

Timeline	Q2	Q1	Q2	Q3	Q4
Releases	Version 1 - Baseline	Version 1.1	Version 1.2	Version 1.3	Version 1.4
Desired Experience What should people using the product or service be able to do and feel?	**Building Managers** be able to discovery and view status of all the devices and controller **Tenants** should be able to register and onboard on to the building **Tenants** should be able to get into the building using their app on the phone securely **Tenants** should be able to schedule maintenance and view status **Maintenance Crew** should be able to get tenant requests, acknowledge & update status	Hardware and SaaS Platform Focus	Basic Mobile App Development Additional Hardware Features	Electric Car Hardware controls Camera Controls and Security	Electric Car Mobile App Addition Predictive Maintenance
Must-Have Capabilities	Basic Device Discovery SmartAccess Controller Connectivity Main Dashboard Status and Alerting Tenant Mobile App Tenant NFC Key based Secure Access Build Staff Mobile App	Main Dashboard Device Discovery and Provisioning	Tenants Onboarding with Mobile App Tenant Mobile App with Access Keys Tenants Maintenance Requests Building Manager Mobile App Maintenance Staff mobile App Device Status and Control Systems Alerting	Camera feeds on the main SaaS Platform AI based Security Alerts from Video feed processing Electric Car Infrastructure Control Integration	Tenants Electric Vehicle Charging System Predictive Maintenance indication to both Tenants and Building Managers
Drag capabilities up to prioritize					
SmartAccess SaaS Platform	Building Manager should be able to create Admin Users Building Manager should be able to onboard Tenants Building Manager should be able to discover SmartAccess controller and Get Status of Devices and view Alerts	Login and Admin Secure Access with Multi-Factor Authentication Main Dashboard on the Cloud showing Status of control systems discovered and Provisioning	Device Alerting Device Status Page, showing individual device controls	Camera Connectivity Security Alerts to Building Manager from video based threat detection Analytics on Tenant resource usage	Onboarding 3rd Party Controllers Onboarding 3rd Party Wifi and IoT Devices Predictive maintenance indication for Building Managers
SmartAccess Hardware Controller	Controller Hardware Ready to Deploy (Connects to Building Controls - HVAC systems and IoT devices - Wifi Controllers and Cameras) Controller Hardware Connectivity to SaaS Platform	Hardware Controller Ready with connectivity to building controller Hardware controller sends status to Cloud SaaS platform	Detect Building Control (HVAC) malfunction and alert Building Managers and Maintenance Staff	Electric Car connectivity power controls Predictive optimization of HVAC systems	Video Recognition AI Engine AI based security monitoring Resource (lights, AC etc.,) consumption auto-shutoff based on activity
Tenant Mobile App	Tenant should be able to register with the building management software (pre-provisioning done by Building Management) Tenant should be able to get access into the building and their unit using access key on their mobile phone Tenant should be schedule maintenance and view the status of their requests		Tenant self registration using mobile app Tenant building access using access keys Tenants maintenance request and status info	Tenants Green Footprint Status Page Tenant community App Chatbot capabilities for Tenants to interact with common building questions	Tenants building access using Facial Recognition Predictive Maintenance for Tenants Tenants Electric Vehicle Charging System Tenants Electric Vehicle Charging System
Building Staff Mobile App	Build Manager should be able to view overall status of their building controls and any alerts Building Managers should be able to get requests from tenants and assign requests to Maintenance crew Maintenance crew be able to view and accept maintenance requests and update status		Building Manager Alerts on Mobile Phones Building Manager Maintenance Status Maintenance staff accept and update status on requests	Building Manager Chat with Maintenance Staff Building Manager Chat with tenants	Chatbot for Maintenance staff about fixing issues in the building

End