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**Danielle specializes in Apple products and technologies.**

**She holds Apple's highest level in the IT track of the Certification Programs, and is an Apple Certified Trainer & Consultant.**

**Danielle has a proven track record with a wide range of business and personal clients including: Tech Data, Amsys, Mario Testino, Abercrombie & Fitch and Boston University.**

**In particular, Danielle specializes in solutions for businesses looking to integrate Apple technologies including advice, planning, deployment and maintenance for Apple equipment and networks.**

# IOT & HOME AUTOMATION

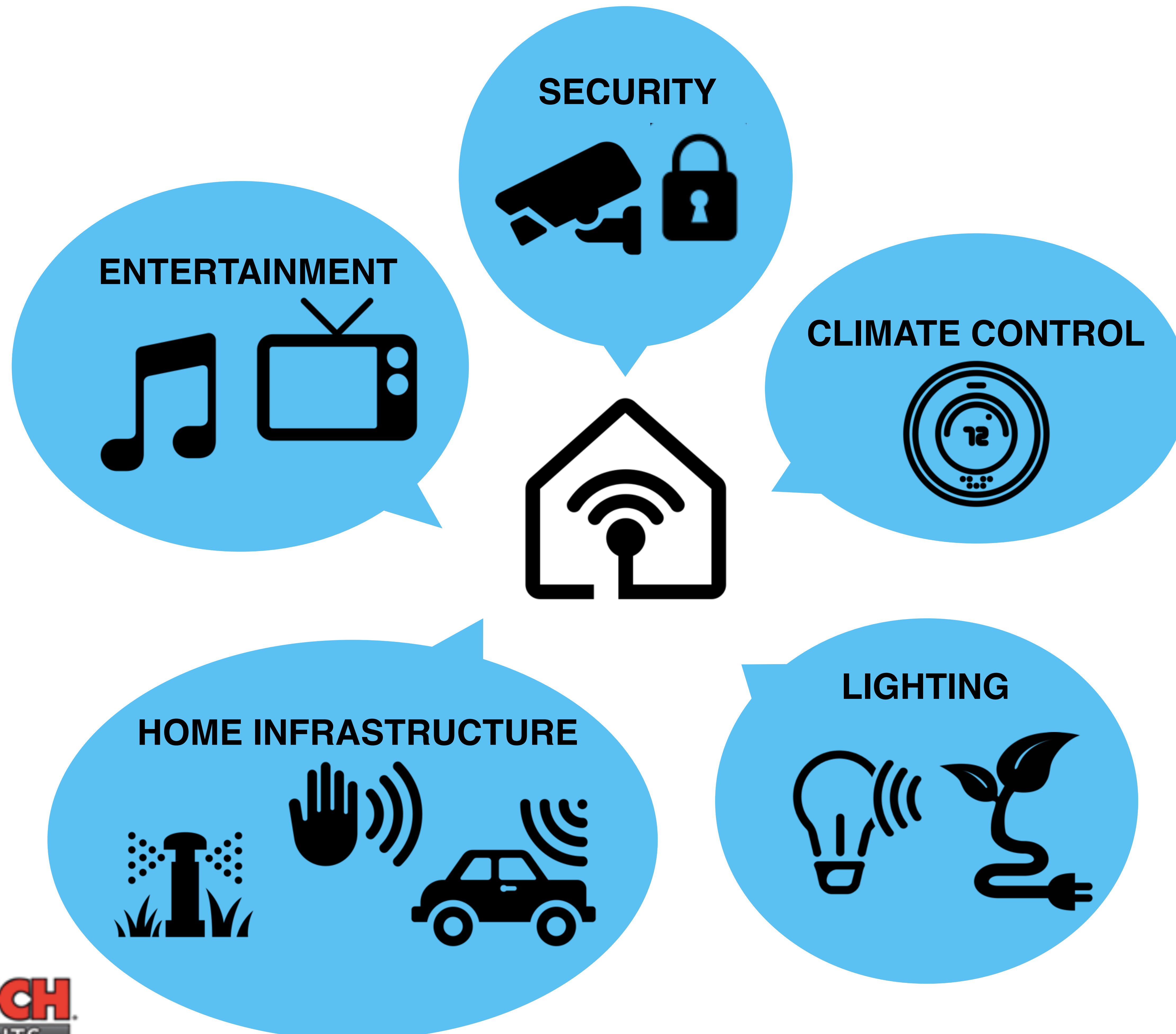
WHAT YOU NEED TO KNOW

# THE SMART HOME

## IOT & HOME AUTOMATION

# THE SMART HOME

## IOT & HOME AUTOMATION





# AGENDA

IOT & HOME AUTOMATION

## SIGNALING TECHNOLOGIES



## PLATFORMS



# SIGNALING TECHNOLOGIES : X10

## IOT & HOME AUTOMATION

- **PIONEERING TECHNOLOGY** 1975
- **POWERLINE** wired into the walls
- **SLOW** bursts of 120 kHz RF signal to responders
- **LOW RELIABILITY** sensitive to line noise
- **SECURITY** no encryption
- **MORE AFFORDABLE**



# SIGNALING TECHNOLOGIES : INSTEON

## IOT & HOME AUTOMATION

- **COMPATIBILITY** X10, not an open standard
- **DUAL BAND** radio-frequency and powerline
- **RELIABLE** simulcast, scalable
- **FAST** 2880-38400 bps
- **EASY SETUP** Statelink
- **CONSUMER** Hub and Hub Pro

I N S T E  N<sup>®</sup>

# SIGNALING TECHNOLOGIES : LUTRON

## IOT & HOME AUTOMATION

- **PROPRIETARY PROTOCOL**
- **50+** years of innovation
- **15,000** products
- **ADVANCED LIGHTING**
- **WINDOW SHADE CONTROL**
- **CONSUMER** Lutron Caséta Wireless Smart Bridge





# SIGNALING TECHNOLOGIES : ZIGBEE

## IOT & HOME AUTOMATION

- **PURE WIRELESS** 802.15.4 IEEE, RF signaling/control
- **OPEN STANDARD** for hobbyists
- **MEMBERSHIP CONFLICT** fee to the ZigBee Alliance
- **COMMERCIAL/UTILITY INDUSTRIES** few in HA
- **MORE EXPENSIVE** than Insteon and Z-wave
- **CONSUMER** Crestron and Control4



# SIGNALING TECHNOLOGIES : Z-WAVE

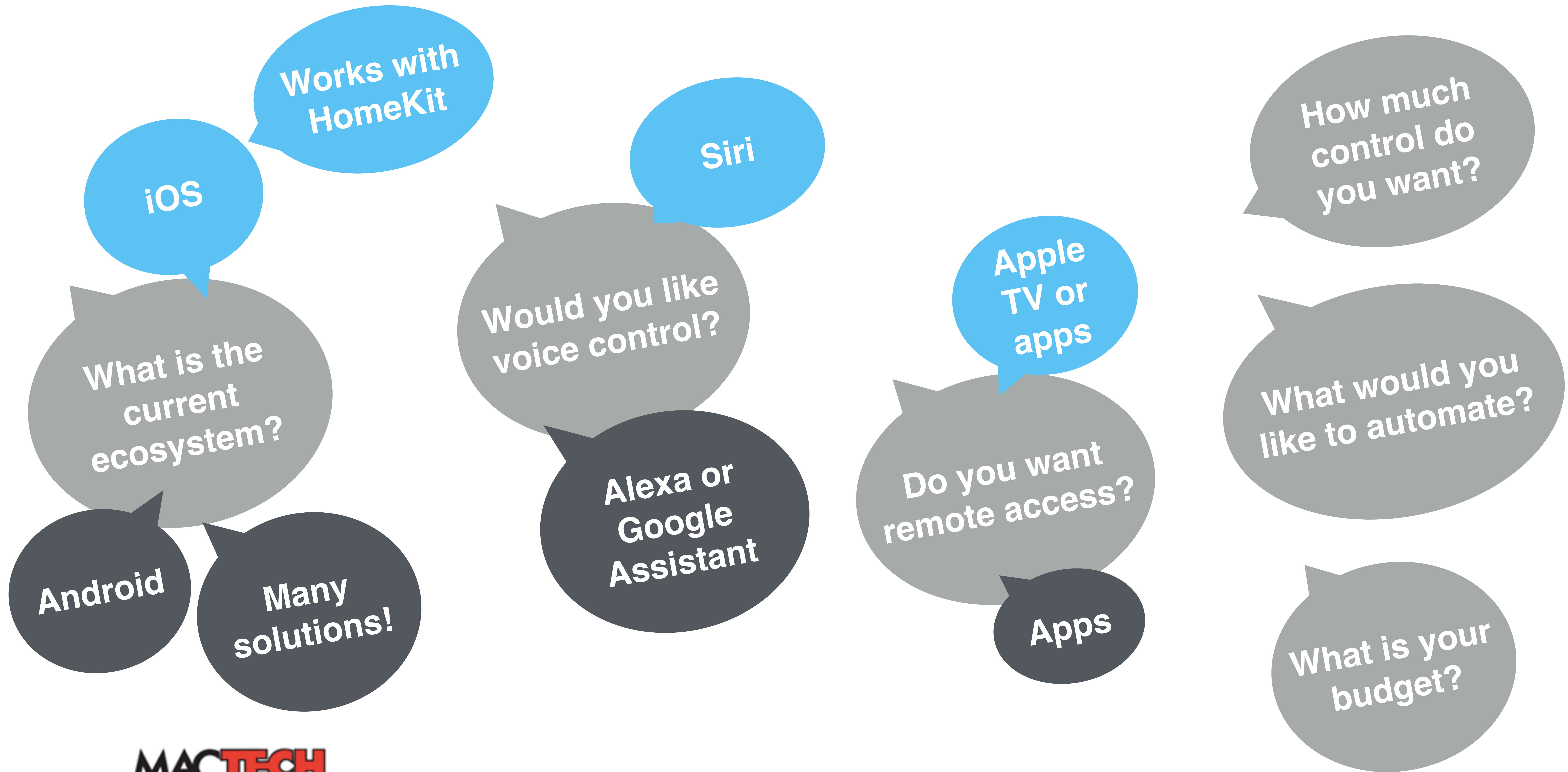
## IOT & HOME AUTOMATION

- **PURE WIRELESS** RF signaling/control
- **BASED ON ZIGBEE** more simple, less expensive
- **NETWORK CONTROLLER** hub, setup and manage network
- **NETWORK SIZE** 232 nodes, but 30-40 ideal
- **LOW POWER** good for battery power
- **CONSUMER** SmartThings, Wink



# THE PLATFORMS

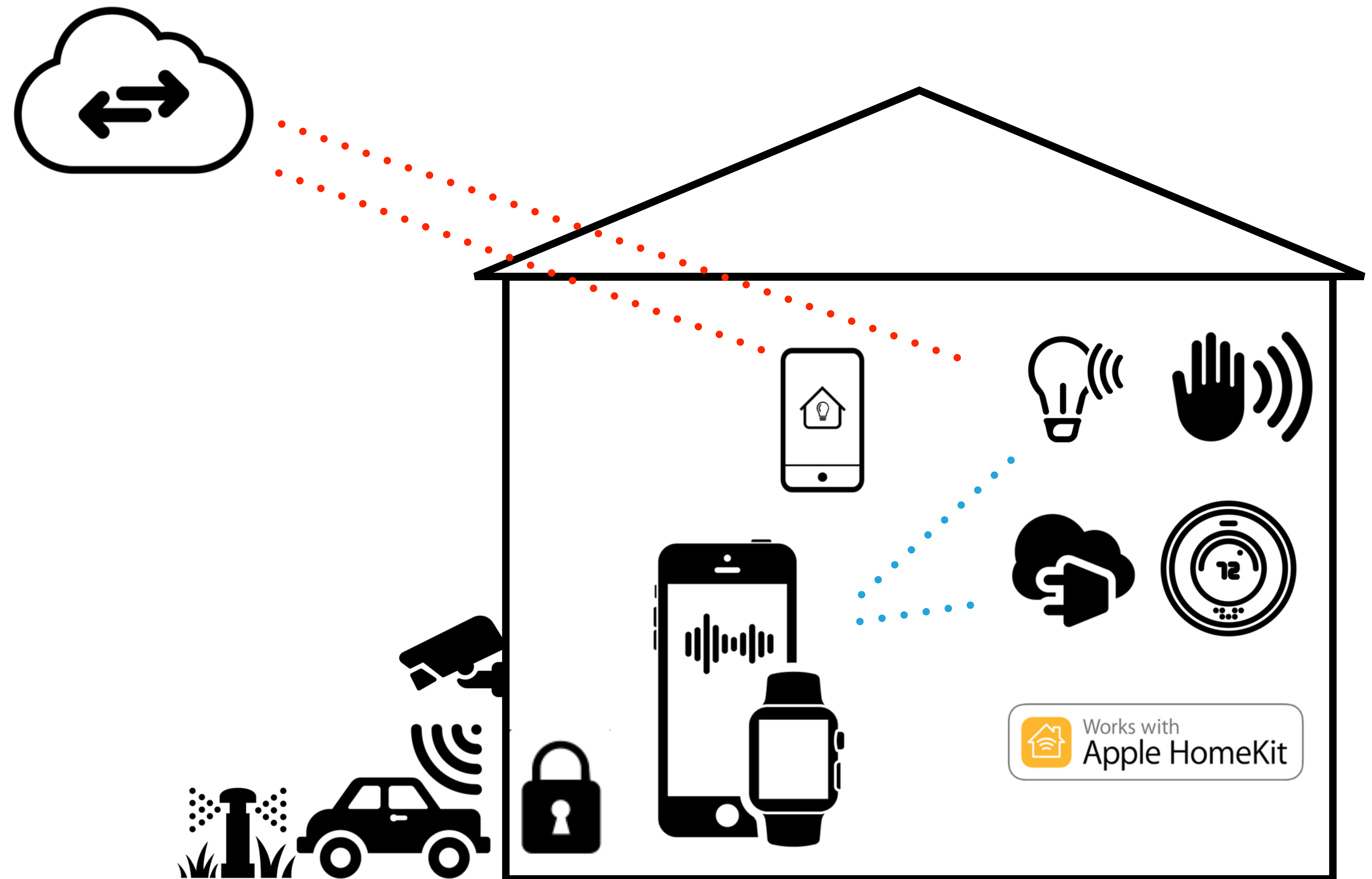
## IOT & HOME AUTOMATION





# THE PLATFORMS : HOMEKIT

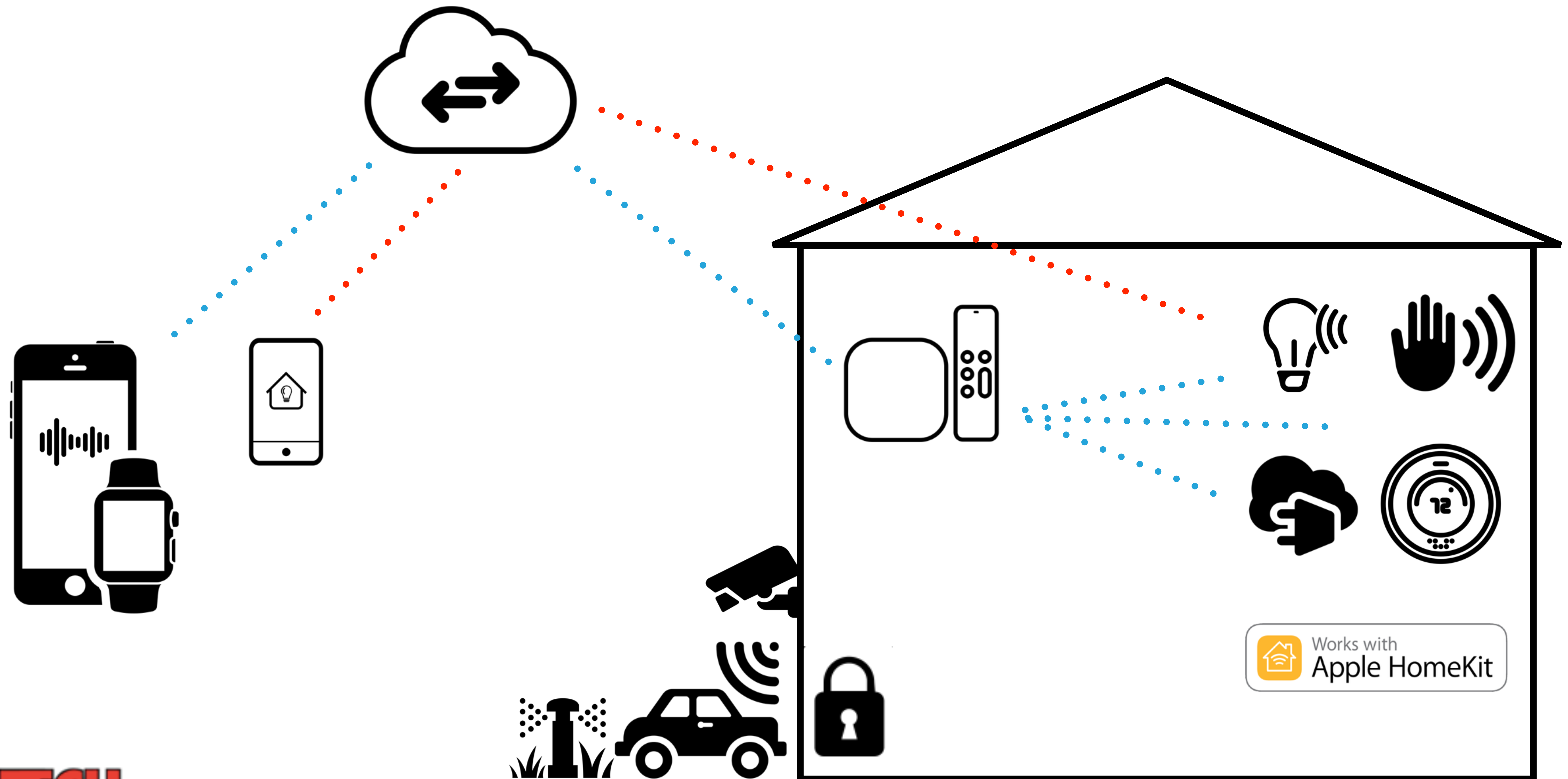
IOT & HOME AUTOMATION





# THE PLATFORMS : HOMEKIT WITH REMOTE ACCESS

## IOT & HOME AUTOMATION

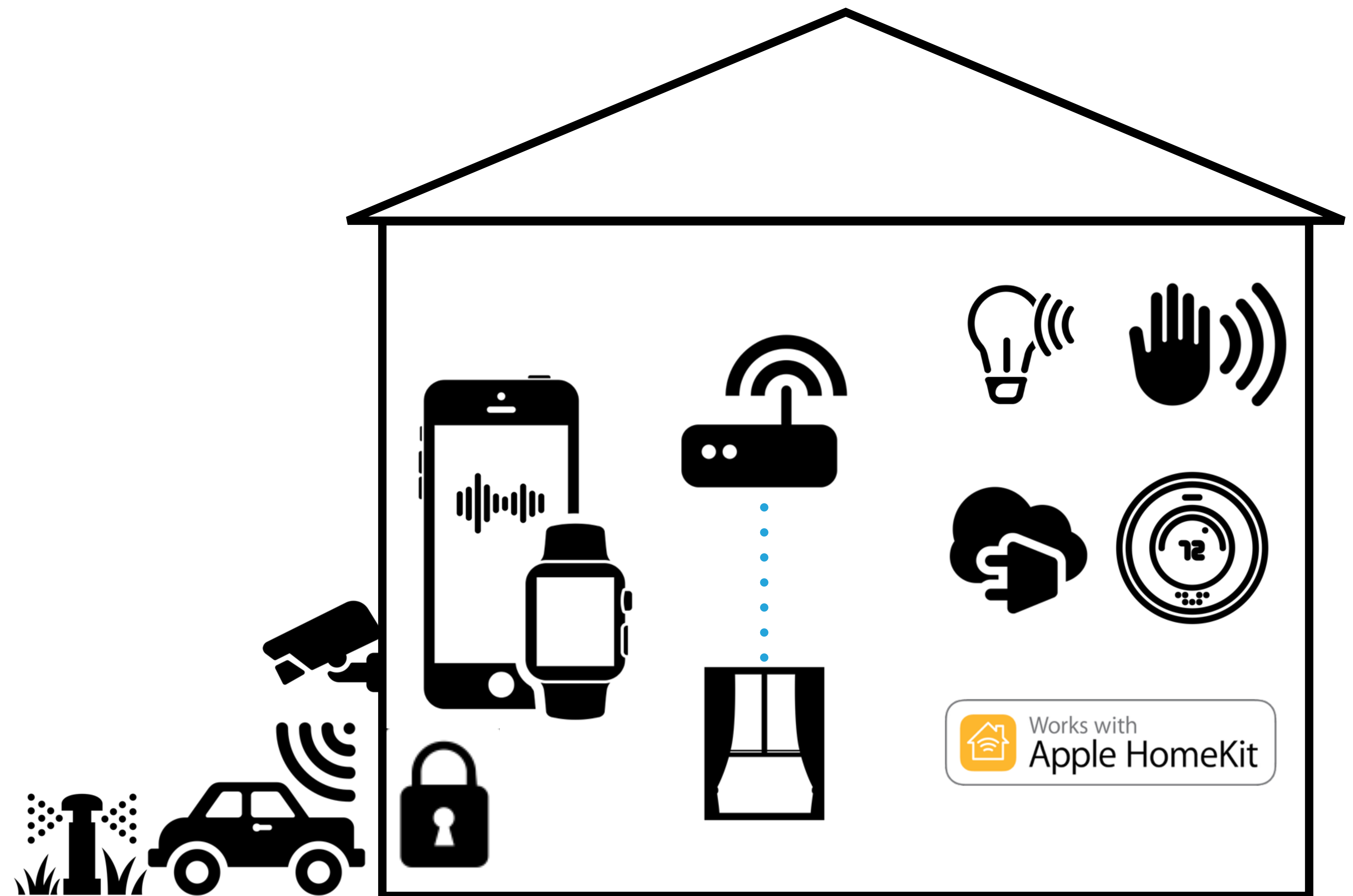


# THE PLATFORMS : HOMEKIT WITH OTHER SIGNALING TECHNOLOGIES

## IOT & HOME AUTOMATION

INSTEON®  
LUTRON®

**MACTECH**  
PRO EVENTS



# THE PLATFORMS : APPLE HOMEKIT

## IOT & HOME AUTOMATION

- **VOICE CONTROL** Siri
- **NO HUB** iOS
- **APPLE TV** remote access, Siri
- **BLUETOOTH & WiFi** hubs for compatibility
- **SECURE** encryption, MFi Program

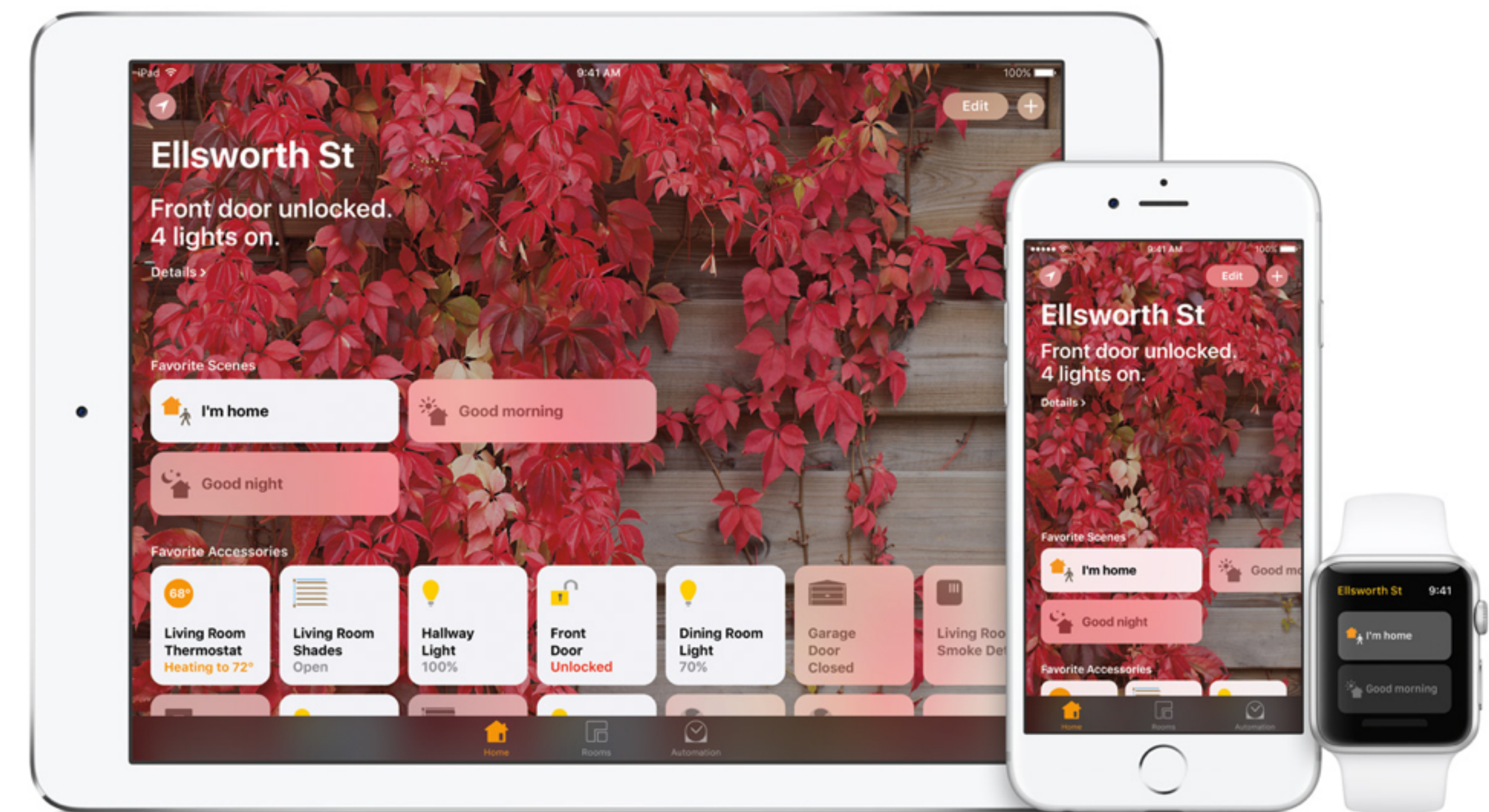




# THE PLATFORMS : HOMEKIT

## IOT & HOME AUTOMATION

- **HOME APP** New! iOS 10
- **SETUP CODE STICKER**
- **CLASSIFICATION OPTIONS** accessories
- **COMMON DATABASE**  
a home, room, accessory, function
- **MULTIPLE USERS** through iCloud accounts

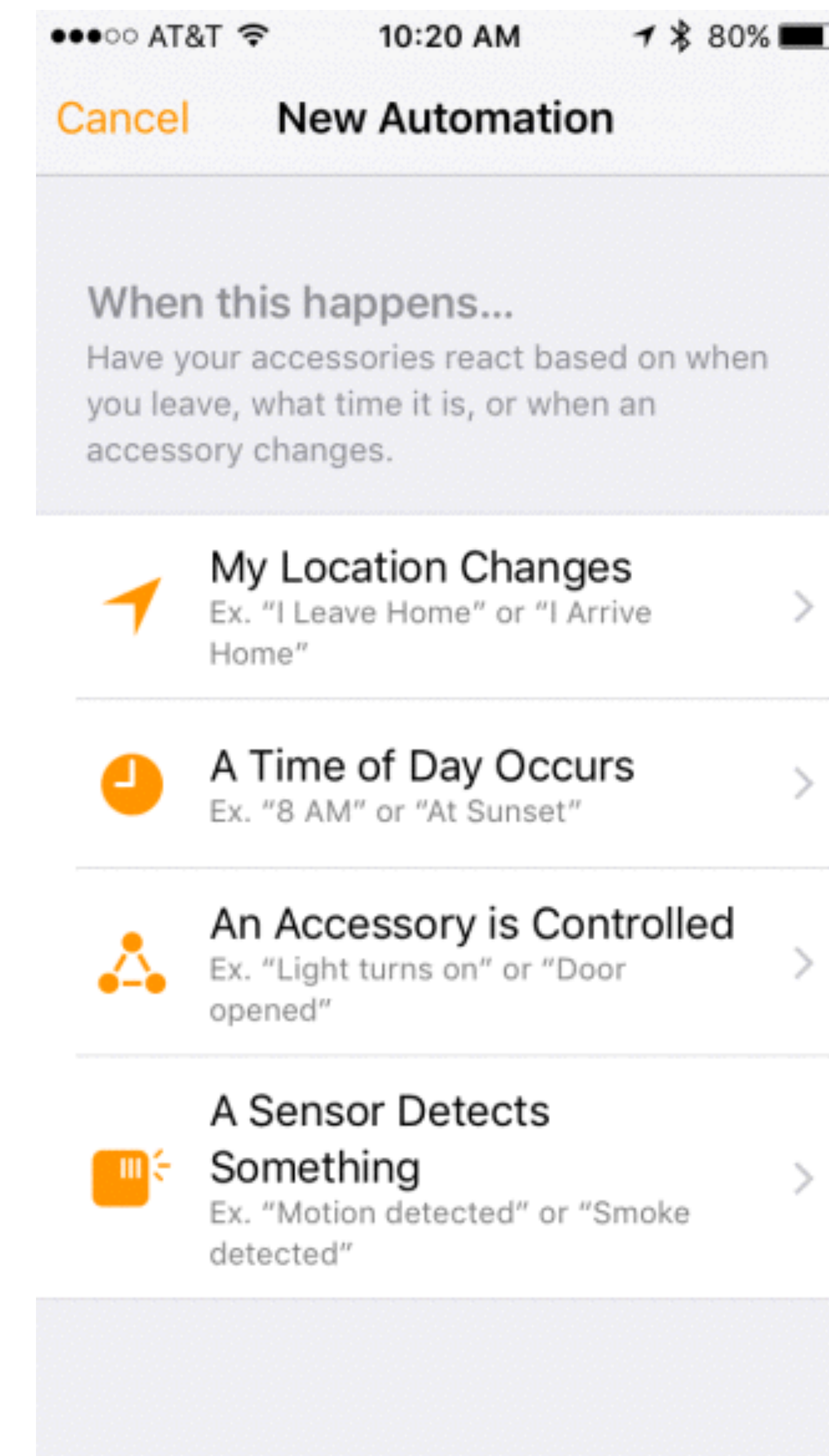




# THE PLATFORMS : HOMEKIT

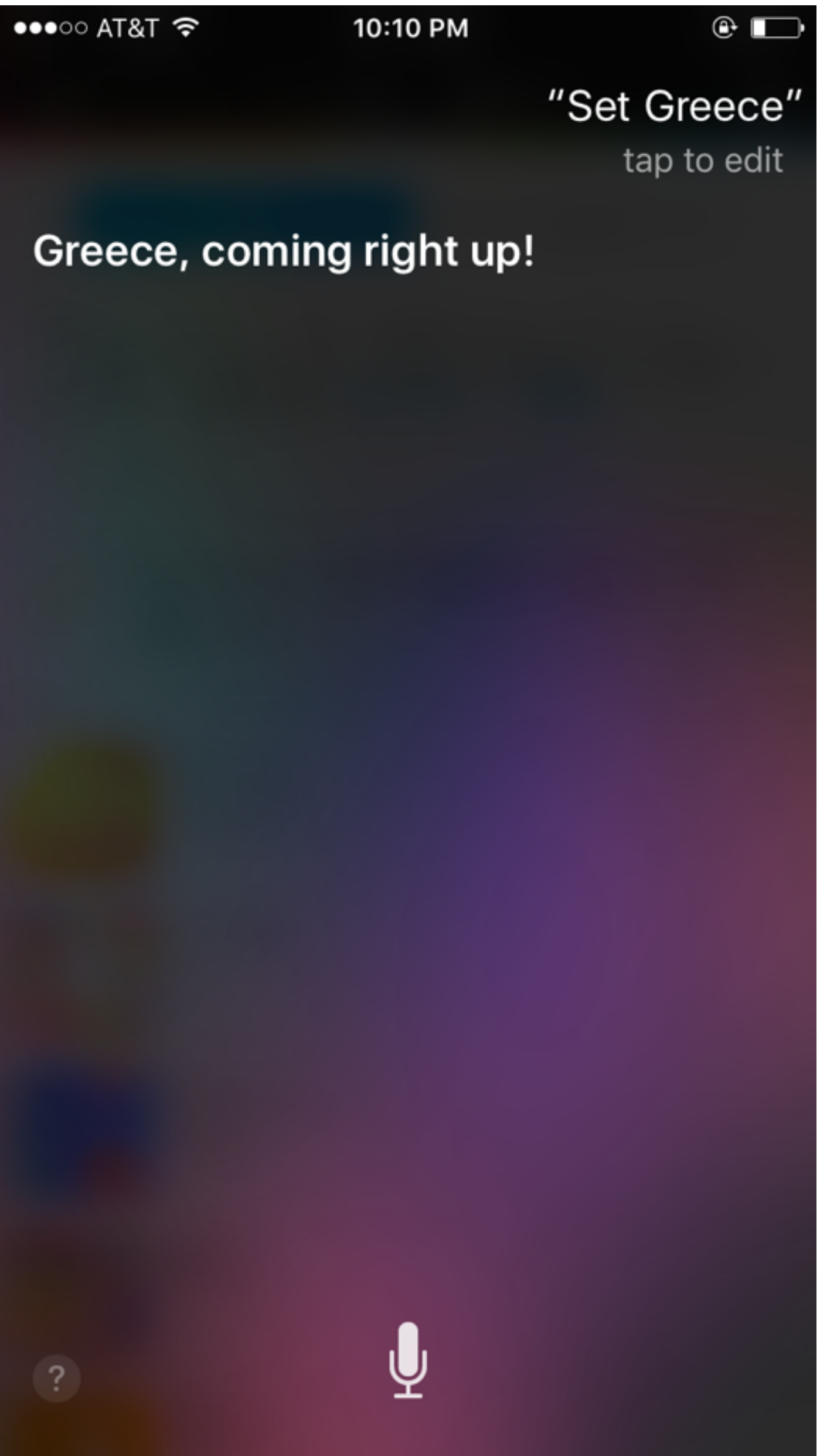
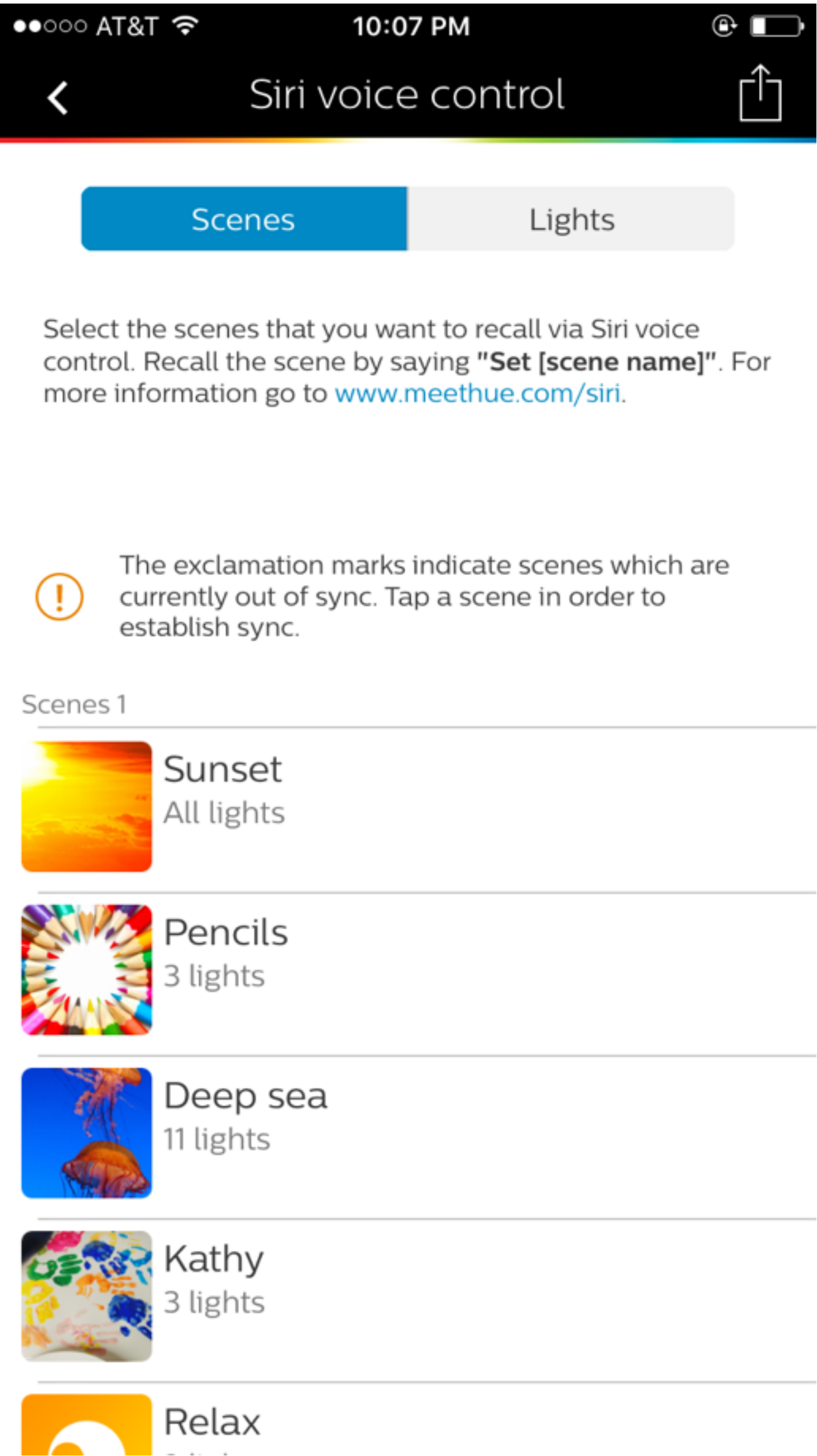
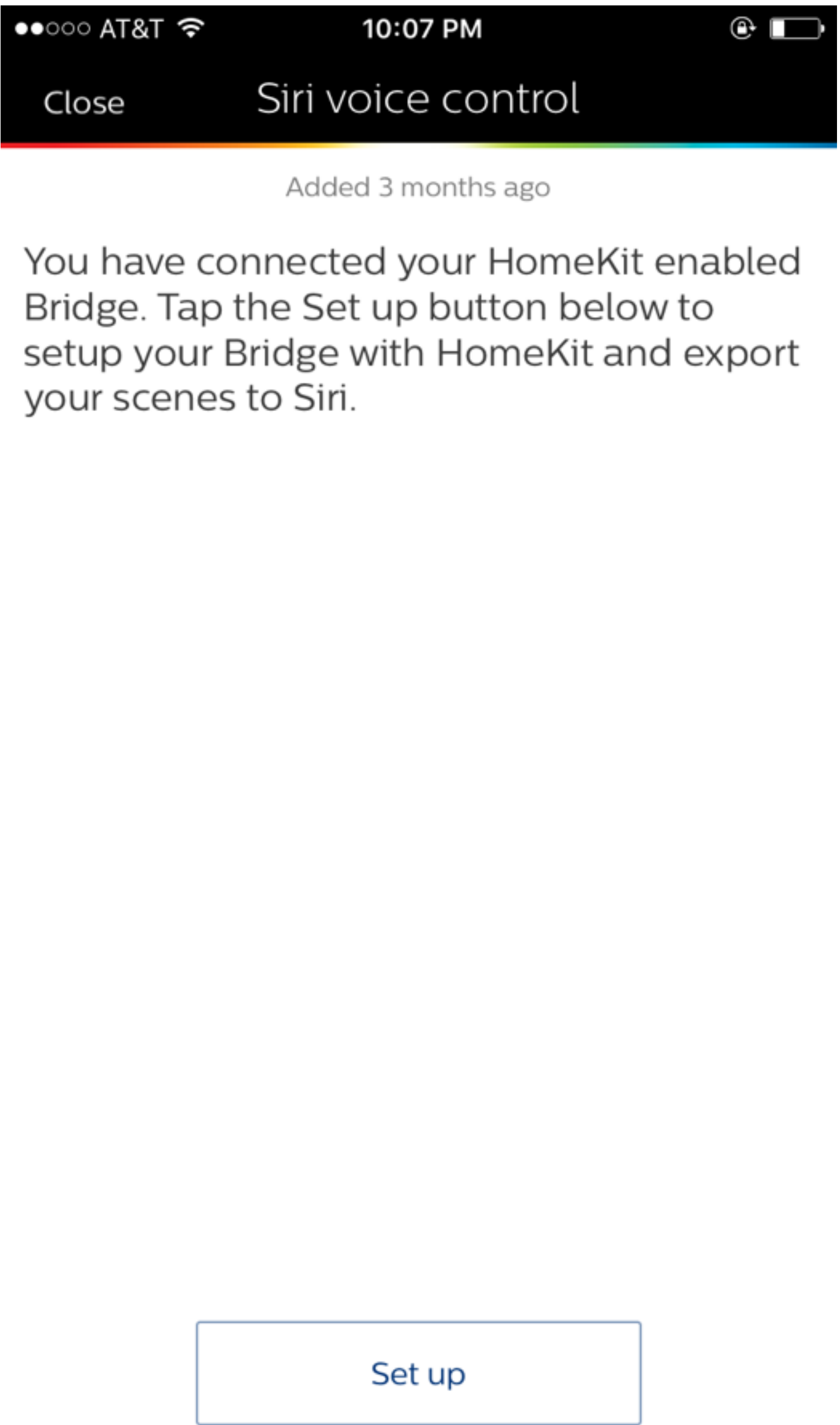
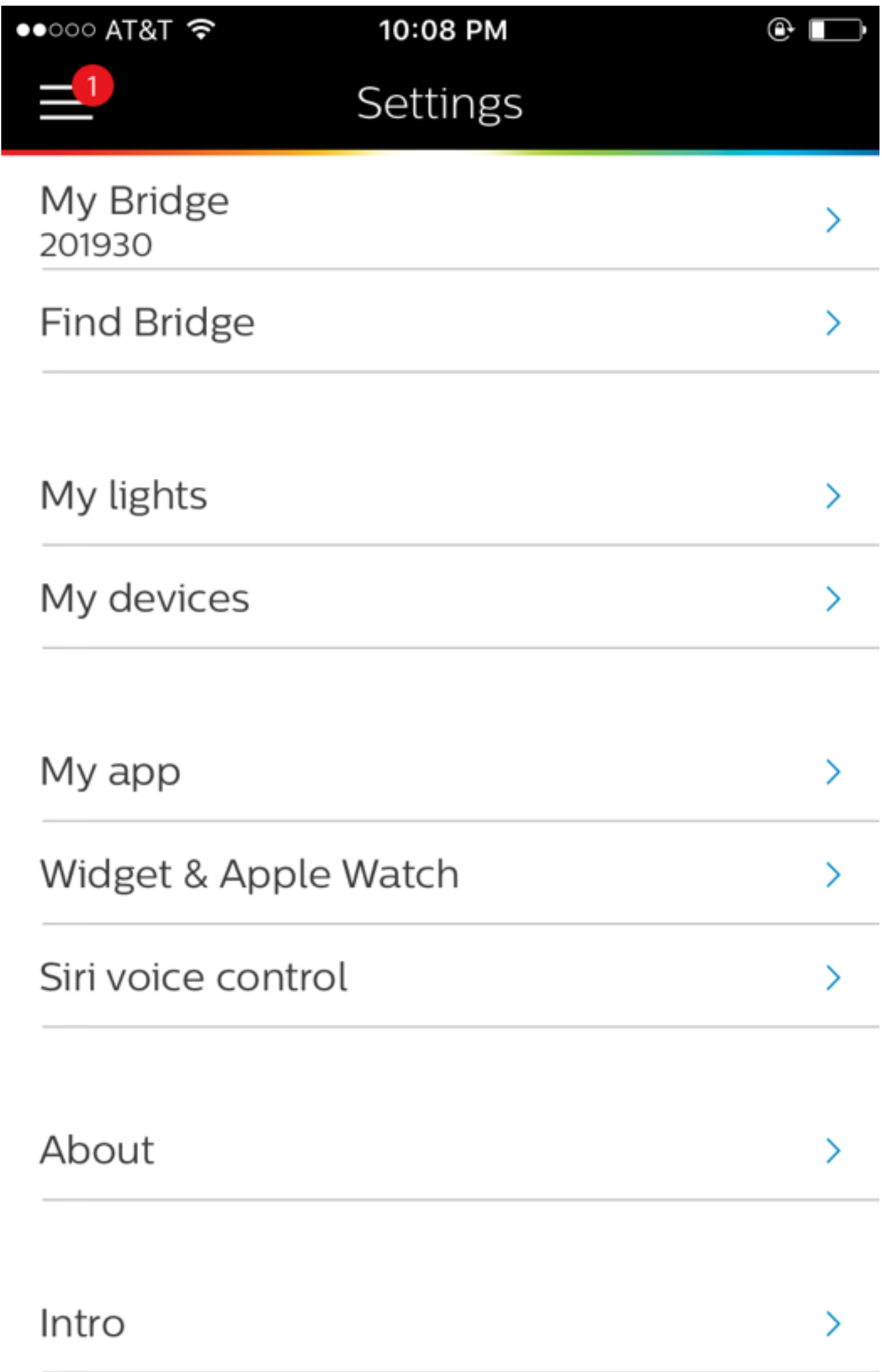
## IOT & HOME AUTOMATION

- **HOMES** we should be so lucky!
- **ROOMS** per home
- **ZONES** upstairs
- **SCENES** “Party time!”
- **AUTOMATION** triggers



# THE PLATFORMS : HOMEKIT PLUS PHILIPS HUE

## IOT & HOME AUTOMATION





# THE PLATFORMS : HOMEKIT PLUS ELGATO EVE

IOT & HOME AUTOMATION

eve door & window 



 Open/Closed State

eve weather 



 Temperature  Humidity  Air Pressure

eve room 



 Air Quality  Temperature  Humidity



-  Consumption
-  Switch On/Off
-  Gain Insights

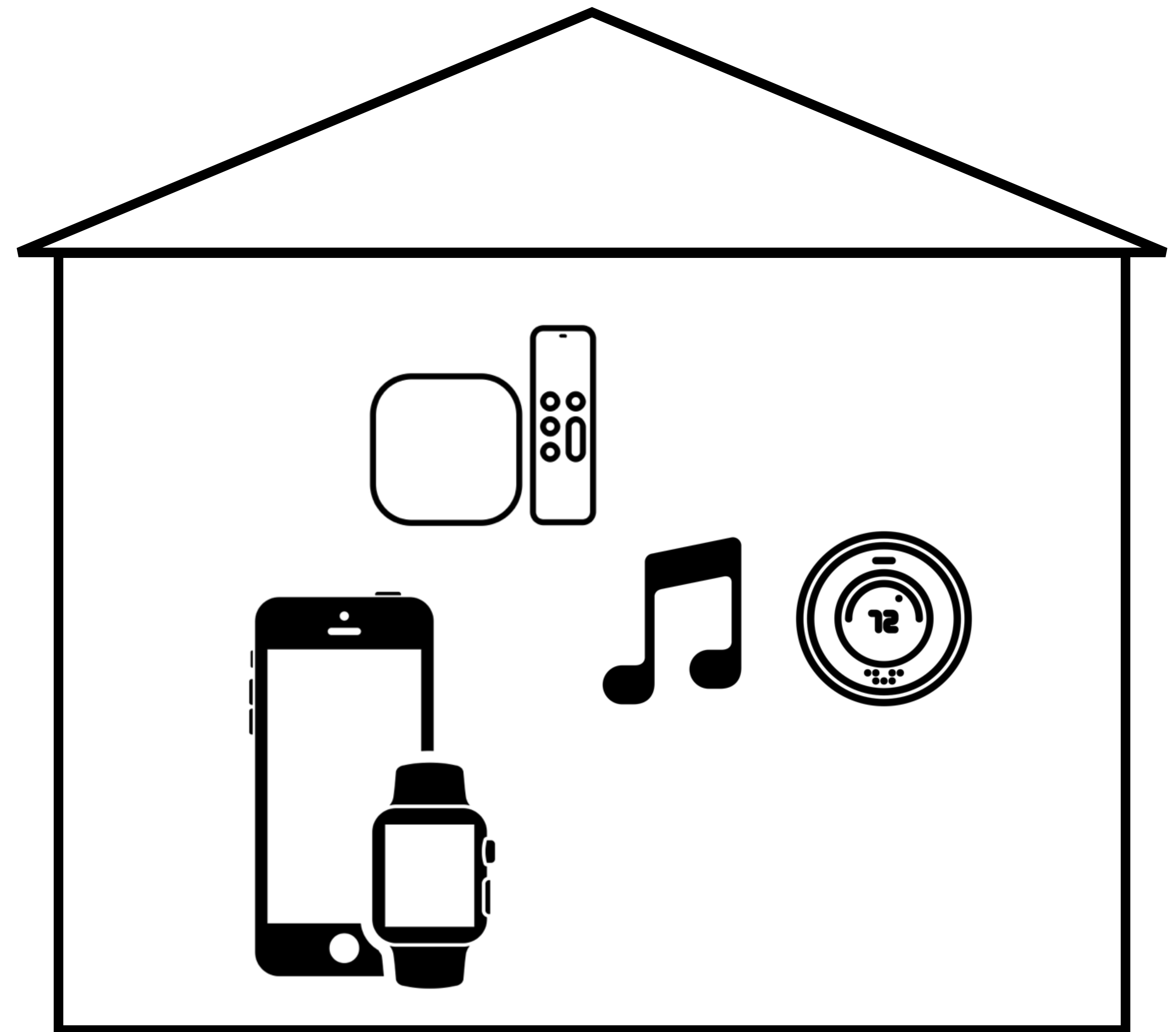
eve energy 



# THE PLATFORMS: BRIDGES

## IOT & HOME AUTOMATION

- **HOMEBRIDGE** Nest, SmartThings, Sonos
- **APPS** Indigo, manufacturer specific
- **IFTTT** recipes as triggers





# THE PLATFORMS : NON-HOMEKIT

IOT & HOME AUTOMATION

wink

or

wemo

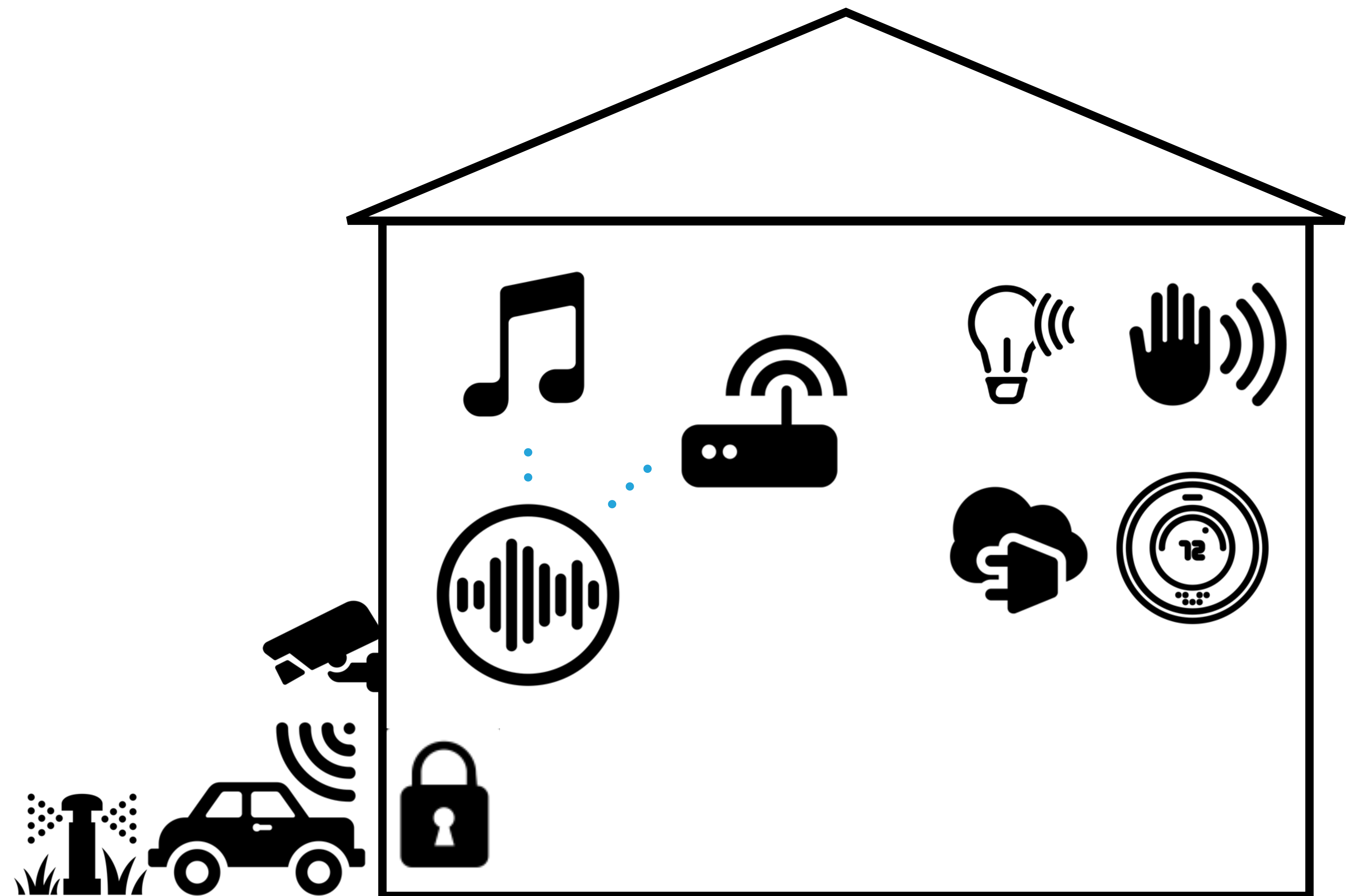
or

 **SAMSUNG**  
SmartThings™

and

 **amazon** echo

**MACTECH**  
PRO EVENTS





# THE PLATFORMS : AMAZON

## IOT & HOME AUTOMATION

- **VOICE RECOGNITION SPEAKER**
- **INTEGRATION** Sonos
- **CENTRAL SYSTEM** independent of phone
- **GROWING ECO SYSTEM** Dot, Tap, Dash Button
- **SECURITY** new considerations





# THE PLATFORMS : GOOGLE

## IOT & HOME AUTOMATION

- **WEAVE** communication platform
- **BRILLO OS** Android-based for smart home devices
- **NEST** Nest Weave (proprietary protocol) app, cameras, thermostats and detectors
- **OnHub** more than a router
- **COMPATIBLE SMART TECH** Mercedes Benz



# THE PLATFORMS : GOOGLE

## IOT & HOME AUTOMATION

- **VOICE RECOGNITION SPEAKER** multi-room
- **GOOGLE ASSISTANT**
- **CAST** Chrome, Spotify
- **COMING LATER THIS YEAR** price TBC

Google Home



Manage everyday tasks effortlessly





# THE PLATFORMS

## IOT & HOME AUTOMATION

- INTEGRATORS
- ZIGBEE & ZWAVE
- AUTHORIZED DEALERS
- FULL SOLUTIONS
- EXPENSIVE



# RETAILER NETWORKS

## IOT & HOME AUTOMATION

- **APPLE** Philips Hue Bridge, Lutron
- **AMAZON** Echo, SmartThings, Wink Hub
- **HOME DEPOT** Insteon, Lutron, Nest, Hue, SmartThings, WeMo, Wink
- **INTEGRATORS** Control 4, Crestron

# GOING FORWARD

## IOT & HOME AUTOMATION

- HOMEKIT
- AMAZON & SONOS
- GOOGLE
- SAMSUNG
- A RACE TO HORIZONTAL INTEGRATION

# IOT & HOME AUTOMATION

Q&A and your success stories

Danielle DiBella

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