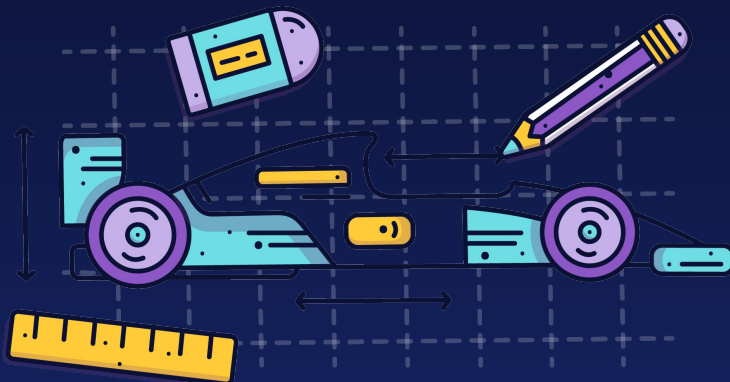# Investec @ Home

Hello! 👋

Jörg Wunderlich

Investec @ Home:
- A quick and dirty experiment to get my Investec account to interact with physical devices or a smart home
- Using HomeBridge, Node.js, MQTT, HomeKit

Architecture

Architecture

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Architecture

- System Components:

  - HomeBridge: https://homebridge.io
  - Shiftr.io MQTT Broker: https://shiftr.io
  - A node.js script with the following dependencies:
    - Express
    - MQTT
  - A working iOs or MacOs device
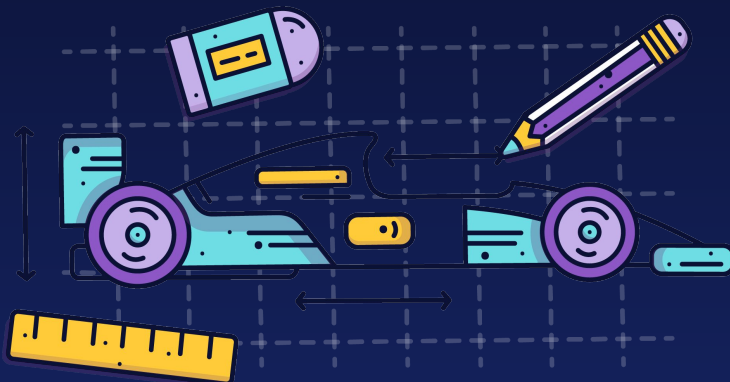
How it works

How it works

- HomeBridge (running in a docker container) acts a bridge between HomeKit and non-native devices
- A small node script acts as the authorizer and glue between Investec and HomeBridge
- Both HomeBridge and the authorizer script subscribe and emit MQTT messages to a cloud MQTT broker (shiftr.io)
- The Investec card is registered as an MQTT lock accessory with HomeBridge

How it works

- The Investec card can be locked/unlocked through HomeKit (Siri, Home App, etc.) or any MQTT capable device (Arduino, Raspberry Pi).
- HomeBridge sends an MQTT message to the broker
- The authorizer script subscribes to these messages and updates its internal state accordingly.
- After the card has been locked, it sends an MQTT confirmation message to the broker. The broker sends the confirmation upstream.

Get creative!

Out of the Ordinary

Investec
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Get creative

- Although implemented with Apple's HomeKit, the approach is universal and can easily be adapted to Google Home, Alexa or bare MQTT by replacing HomeBridge with HomeAssistant, OpenHab, etc.

- Nothing stops us from implementing different accessories, a sensor could be used to "read" account balances, spending, etc.

- Scenes & Automations (i.e. automatically lock your card at night)

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Get creative

Break out into the real world. Control physical devices.
(i.e. open the cookie jar on pay day)

Questions

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