



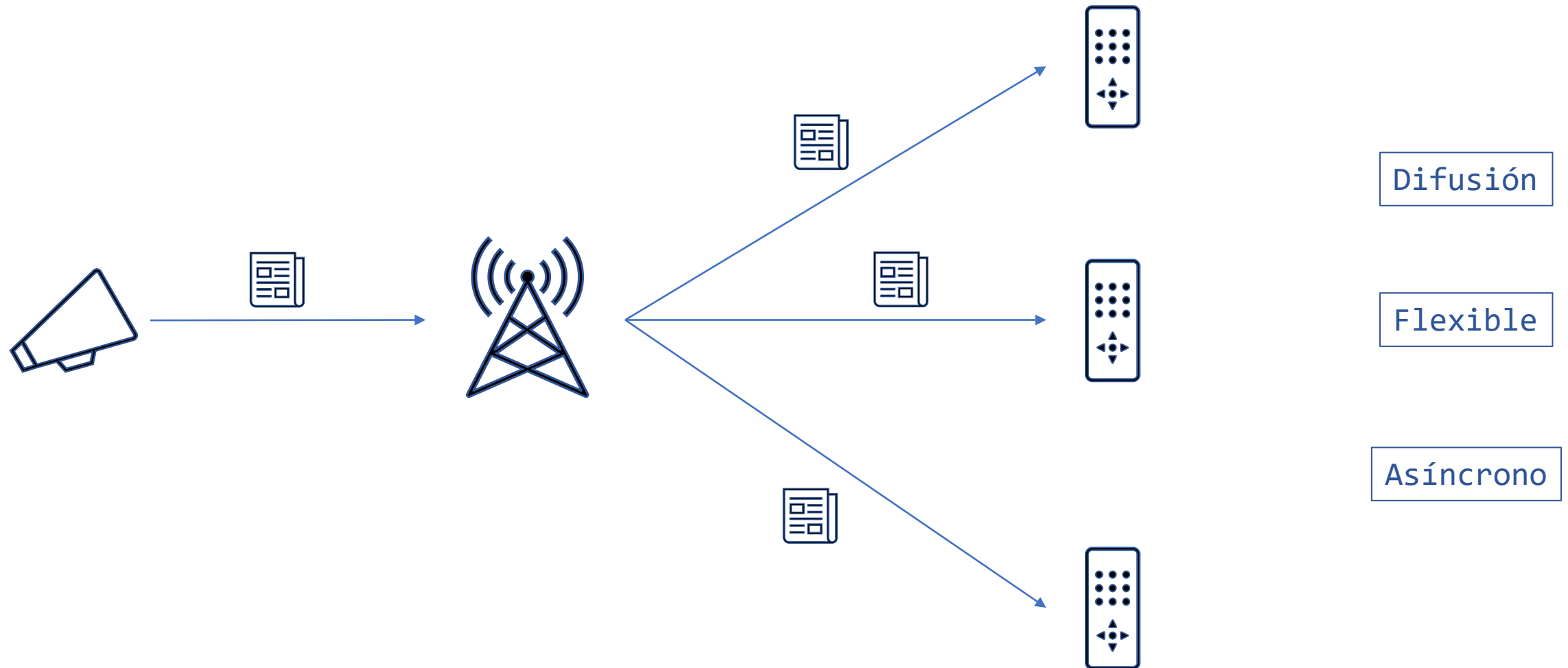
Universidad Politécnica de Madrid

Uso del IoT para construir tú mismo un hogar digital

Probando el bróker MQTT

Iván Pau

Recuerda: Conceptos básicos



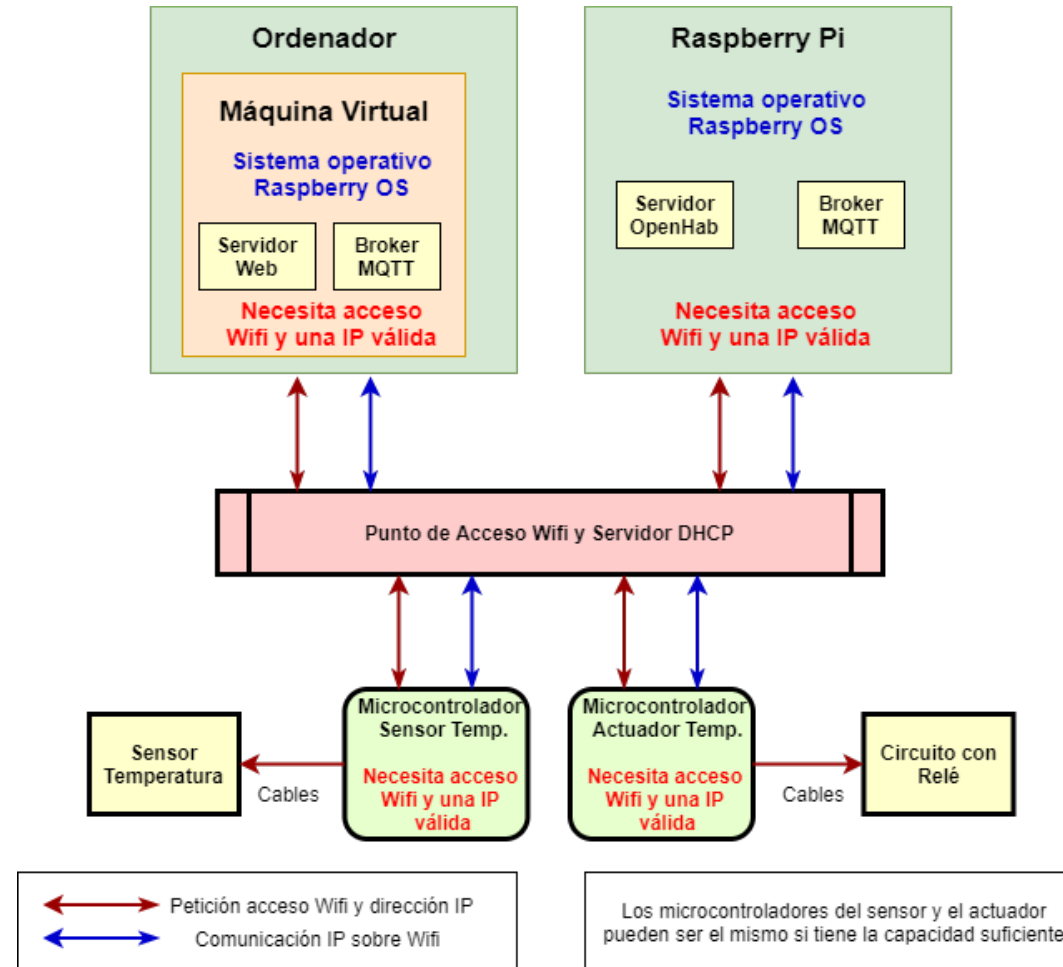
Configuración inicial



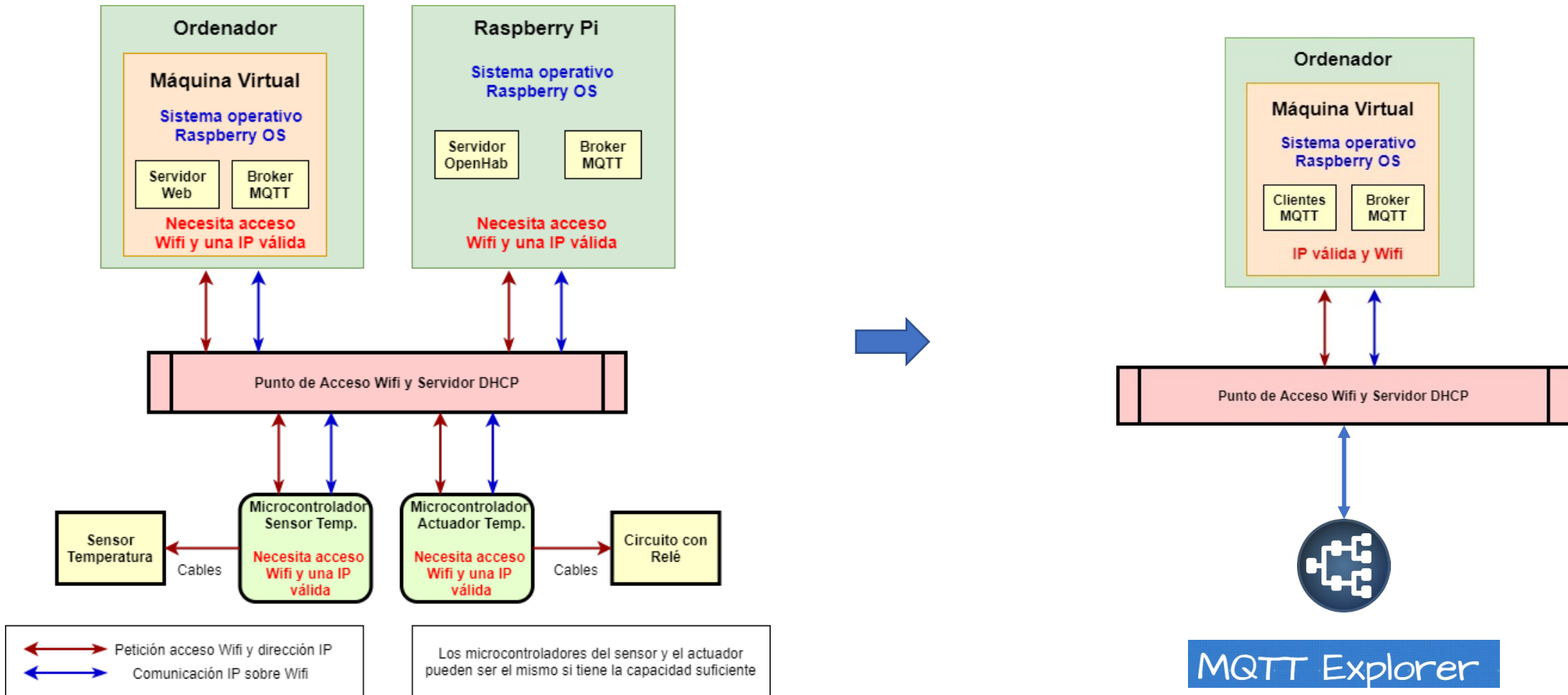
POLITÉCNICA



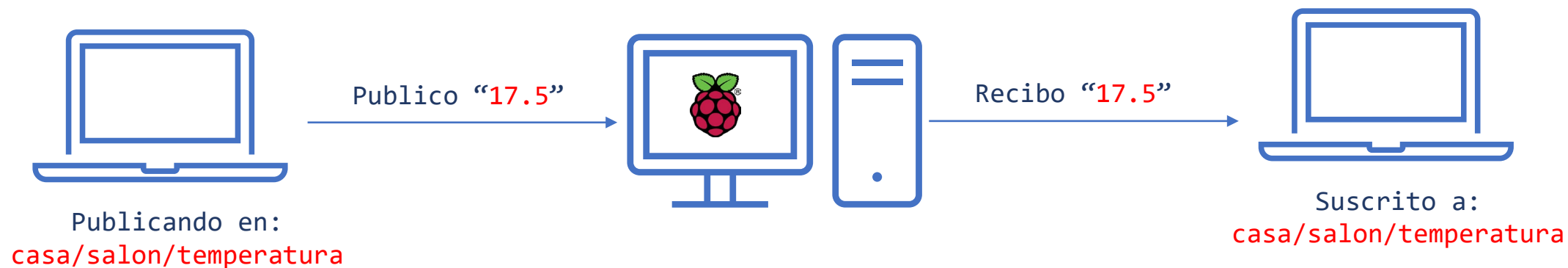
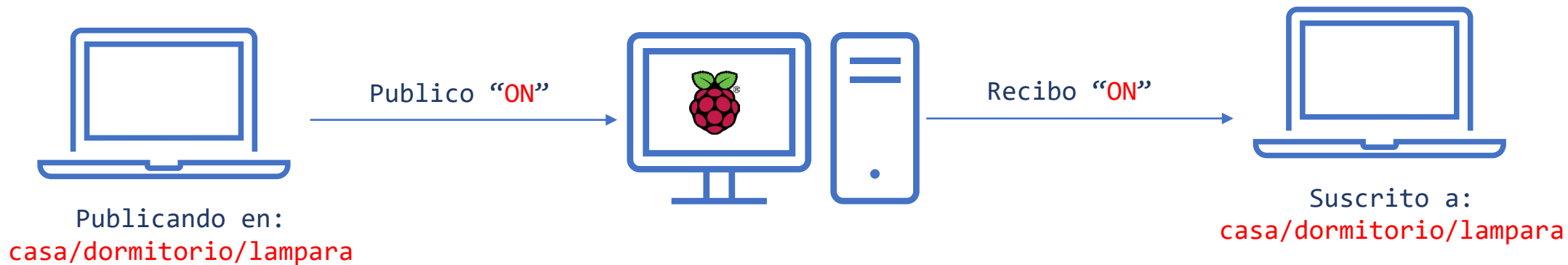
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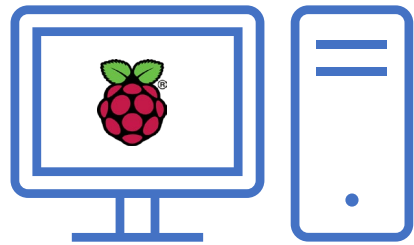
Configuración inicial



Escenario de prueba



Mosquitto – Máquina Virtual



```
Raspberry OS - PC - VMware Workstation 16 Player (Non-commercial use only)
Player | [Pause] | [Full Screen] | [Refresh] | [Close]
[Icons] | pi@raspberrypi: ~ | [Network] | [Volume] | 13:52

Papelera
Web Server
Servidor Web

pi@raspberrypi: ~
Archivo Editar Pestañas Ayuda
pi@raspberrypi:~$ systemctl status mosquitto
● mosquitto.service - Mosquitto MQTT v3.1/v3.1.1 Broker
   Loaded: loaded (/lib/systemd/system/mosquitto.service; enabled; vendor preset
   Active: active (running) since 2023-12-27 11:19:30 CET; 2h 32min ago
     Docs: man:mosquitto.conf(5)
           man:mosquitto(8)
   Main PID: 579 (mosquitto)
     Tasks: 1 (limit: 2284)
    Memory: 1.8M
    CGroup: /system.slice/mosquitto.service
            └─579 /usr/sbin/mosquitto -c /etc/mosquitto/mosquitto.conf

dic 27 11:19:30 raspberrypi systemd[1]: Starting Mosquitto MQTT v3.1/v3.1.1 Broker
dic 27 11:19:30 raspberrypi systemd[1]: Started Mosquitto MQTT v3.1/v3.1.1 Broker.
lines 1-13/13 (END)
```



Eclipse Mosquitto™ An open source MQTT broker

Eclipse Mosquitto is an open source (EPL/EDL licensed) message broker that implements the MQTT protocol versions 5.0, 3.1.1 and 3.1. Mosquitto is lightweight and is suitable for use on all devices from low power single board computers to full servers.

The MQTT protocol provides a lightweight method of carrying out messaging using a publish/subscribe model. This makes it suitable for Internet of Things messaging such as with low power sensors or mobile devices such as phones, embedded computers or microcontrollers.

The Mosquitto project also provides a C library for implementing MQTT clients, and the very popular `mosquitto_pub` and `mosquitto_sub` command line MQTT clients.

Mosquitto is part of the [Eclipse Foundation](#), is an [iot.eclipse.org](#) project and is sponsored by [cedalo.com](#).

Eclipse IoT and Edge Developer survey results

The results of the survey are [now available](#).

Download and Security

Mosquitto is highly portable and available for a wide range of platforms. Go to the dedicated [download page](#) to find the source or binaries for your platform.

Read the [Change Log](#) to find out about recent releases.

Use the [security](#) page to find out how to report vulnerabilities or responses to past security issues.

Test

You can have your own instance of Mosquitto running in minutes, but to make testing even easier, the Mosquitto Project runs a test server at [test.mosquitto.org](#) where you can test your clients in a variety of ways: plain MQTT, MQTT over TLS, MQTT over TLS (with [client certificate](#)), MQTT over WebSockets and MQTT over WebSockets with TLS.

Community

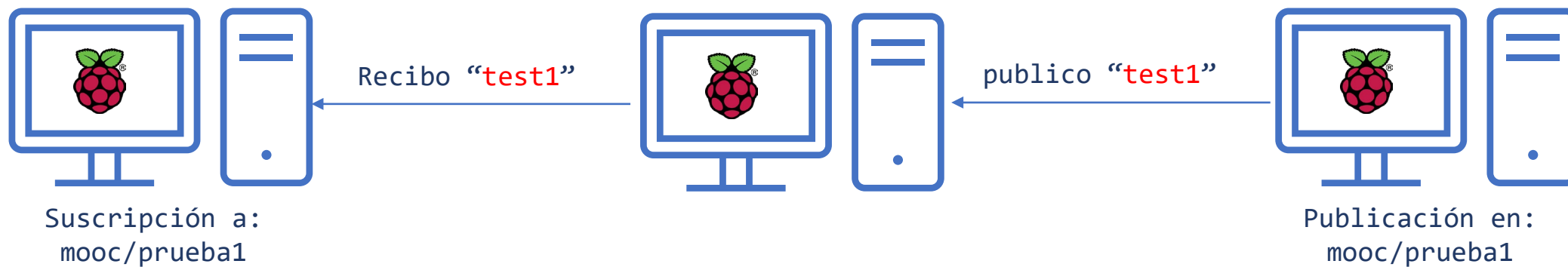
- Report bugs or submit changes on the [Github repository](#)
- Talk to other users on the [Mosquitto mailing list](#) or on [Slack](#).
- Get help from the [forums](#).
- [Cite Mosquitto](#) in your academic work.

Related Projects

[Paho](#) provides MQTT client library implementations in a wide variety of languages.

[Streamsheets](#) is an easy to use web based real time spreadsheet interface that can be used to process incoming data from a variety of sources, such as MQTT, OPC-UA, and REST. Developers and non-developers can use Streamsheets to control processes and build dashboards, for example.

Mosquitto - utilidades

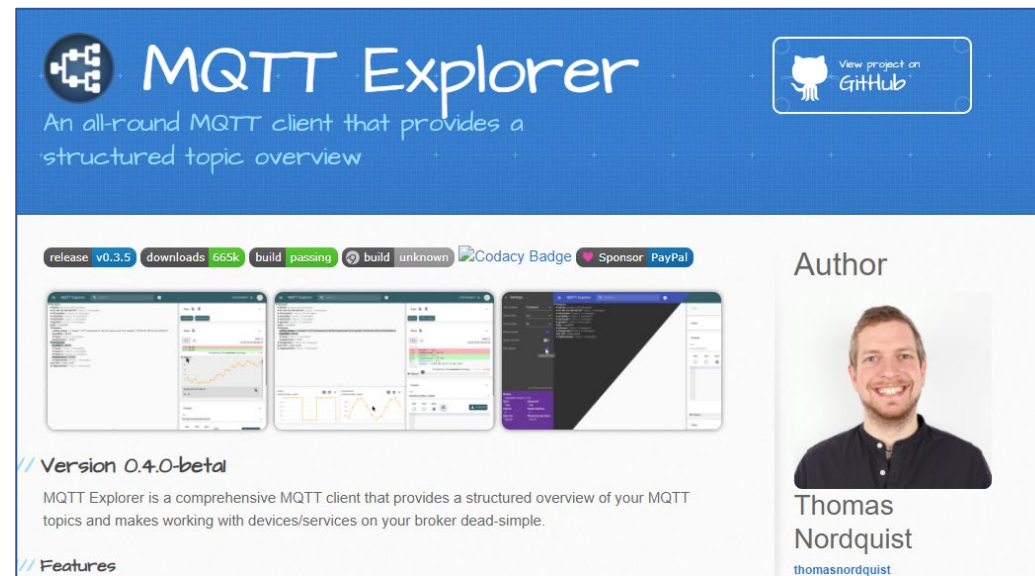
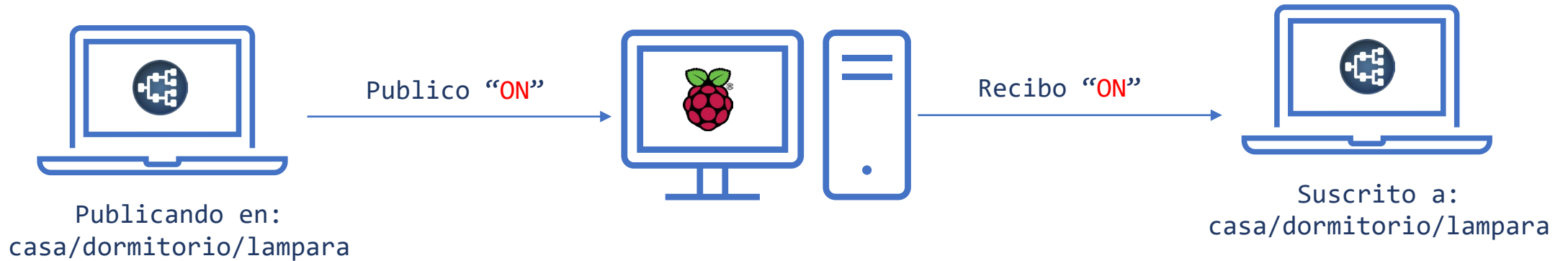



```
pi@raspberrypi: ~  
Archivo Editar Pestañas Ayuda  
pi@raspberrypi:~$ mosquitto_sub -h 127.0.0.1 -t mooc/prueba1
```

```
pi@raspberrypi: ~  
Archivo Editar Pestañas Ayuda  
pi@raspberrypi:~$ mosquitto_sub -h 127.0.0.1 -t mooc/prueba1  
test1
```

```
pi@raspberrypi: ~  
Archivo Editar Pestañas Ayuda  
pi@raspberrypi:~$ mosquitto_pub -h 127.0.0.1 -m "test1" -t mooc/prueba1
```


MQTT Explorer



 **MQTT Explorer**
An all-round MQTT client that provides a structured topic overview

[release v0.3.5](#) [downloads 665k](#) [build passing](#) [build unknown](#) [Codacy Badge](#) [Sponsor PayPal](#) [View project on GitHub](#)

Author



Thomas Nordquist
thomasnordquist


// **Version 0.4.0-beta**
MQTT Explorer is a comprehensive MQTT client that provides a structured overview of your MQTT topics and makes working with devices/services on your broker dead-simple.

// **Features**

mqtt-explorer.com

MQTT Explorer


mqtt-explorer.com




MQTT Explorer
An all-round MQTT client that provides a structured topic overview

View project on [GitHub](#)

release v0.3.5 downloads 665k build passing build unknown Codacy Badge Sponsor PayPal







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// Features



// Download
Developing this tool takes a lot of effort, sweat and time, please consider rating the App on the Windows or Mac app store ★★★★★.
If you feel like a feature is missing or you found a bug, please leave me a comment / issue and I'll see what I can do.

| Platform | Downloads |
|---|---|
|  Windows | portable , installer |
|  Mac | Download on the Mac App Store dmg |
|  Ubuntu <i>debian, mint, neon, fedora, etc...</i> | Get it from the Snap Store <code>snap install mqtt-explorer</code> Ubuntu Store |
|  Linux <i>almost every linux</i> | AppImage Run AppImage: <i>Make it executable and double-click it.</i> |

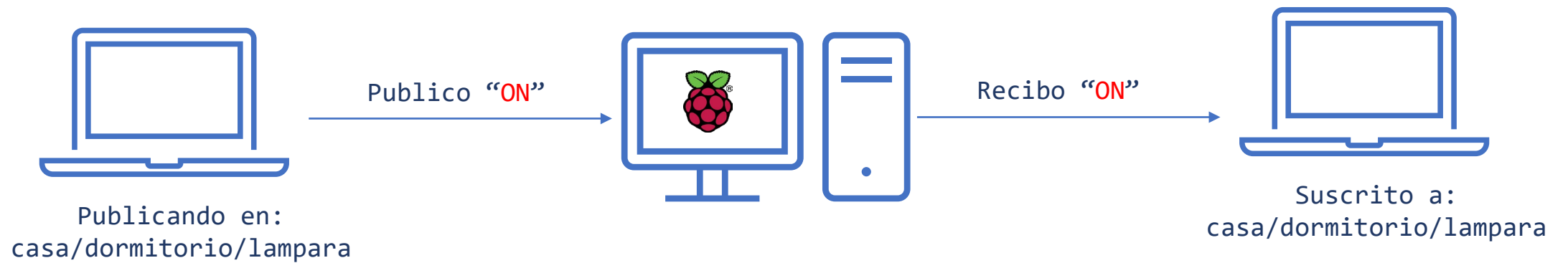
[More Downloads](#)



// IoT Applications
List of useful IoT applications using MQTT to integrate devices / services

- [Home Assistant](#) - Open source home automation gateway
- [OpenHAB](#) - Smart Home Gateway
- [Node-RED](#) - Flow-based programming for the Internet of Things
- [zigbee2mqtt](#) - A ZigBee to MQTT bridge
- [Tasmota](#) - ESP8266 firmware with MQTT support

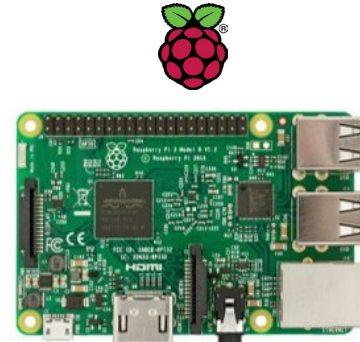




MQTT en Hogar Digital

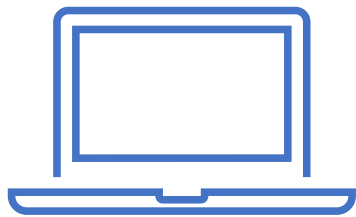


Publico "ON"

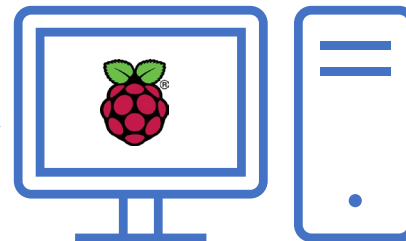


Subscripción
"casa/dormitorio/lampara"

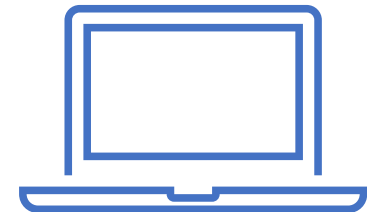
Recibo "ON"



Publico "ON"

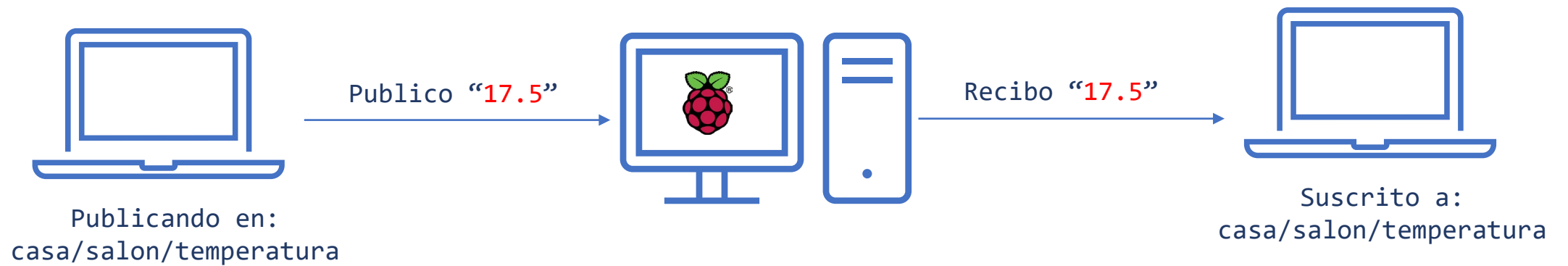


Recibo "ON"

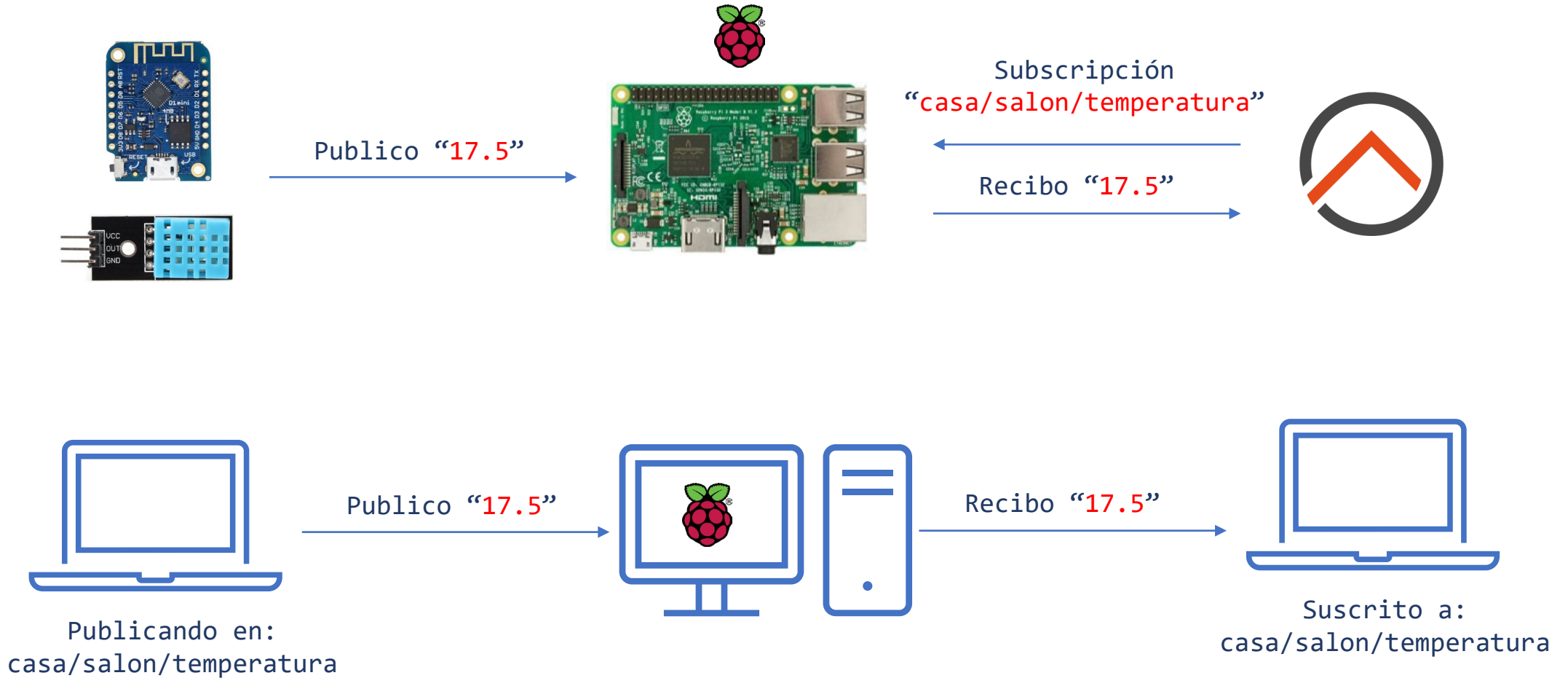


Publicando en:
casa/dormitorio/lampara

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MQTT en Hogar Digital



MQTT en Hogar Digital

