



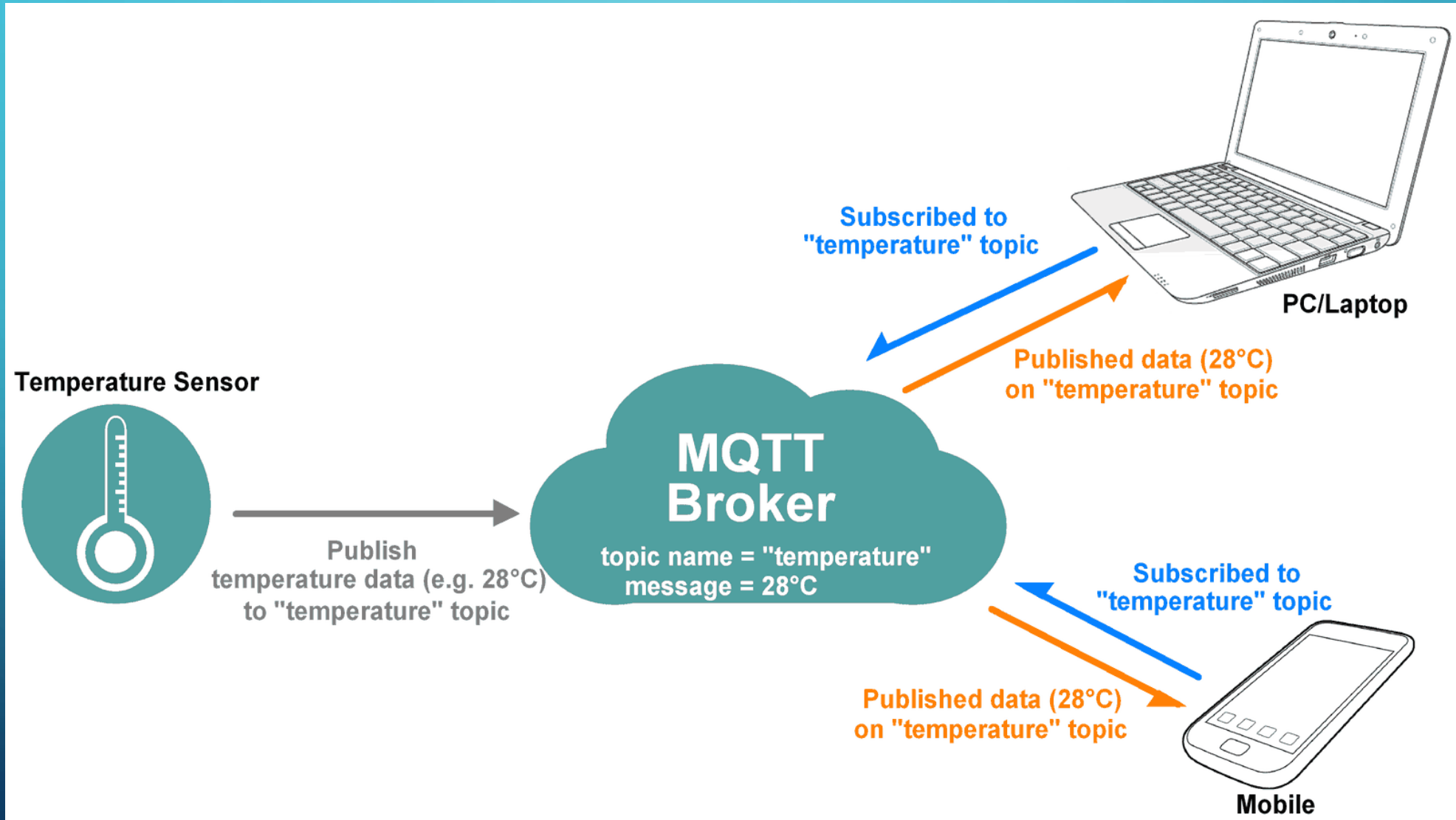
INTERACCIÓN CON DISPOSITIVOS TTN DESDE EL MÓVIL

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MAYO 2021

- **MQTT** para sacar y meter datos de TTN
- **Node-RED** para adaptar los datos de TTN, representarlos en un **dashboard** y enviarlos a **Blynk**
- **Blynk** para controlar bidireccionalmente dispositivos TTN desde el **móvil**
- **CallMeBot** para recibir notificaciones por **Whatsapp** desde myloT

MQTT: PUBLICACIÓN Y SUSCRIPCIÓN



MQTT: TOPICS

topic level
separator
↓
myhome / groundfloor / livingroom / temperature
└───┬───┘ └───┬───┘
topic level topic level

single-level
wildcard
↓
myhome / groundfloor / + / temperature
└───┘
only one level

multi-level
wildcard
↓
myhome / groundfloor / #
└───┘ └───┘
only at the end
multiple topic levels

MQTT: QoS

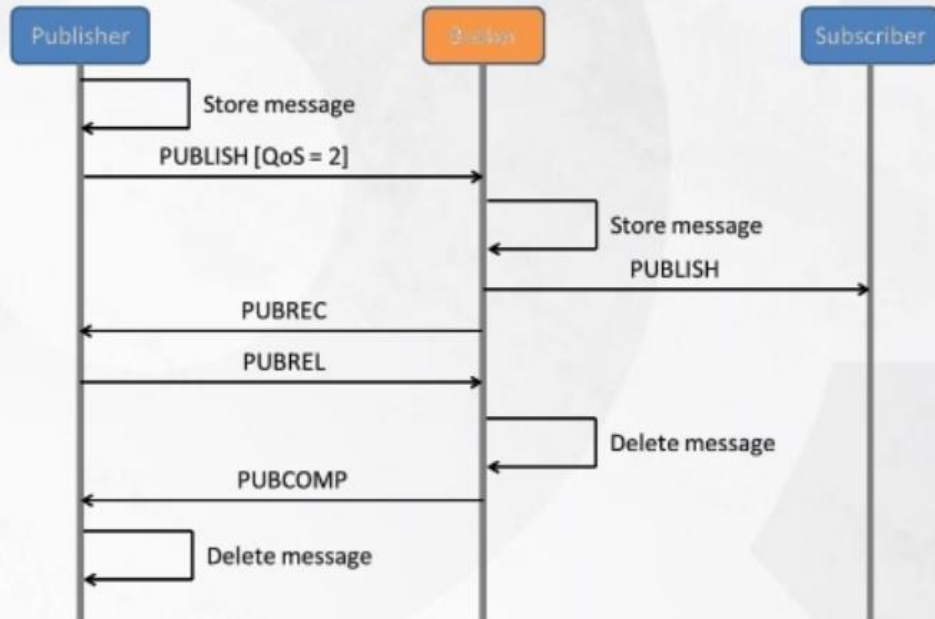
QoS 0 : At most once (fire and forget)



QoS 1 : At least once



QoS 2 : Exactly once



MQTT: TTS Community Edition

THE THINGS STACK
Community Edition

Overview Applications Gateways Organizations

EU1 Community
Fair use policy applies ?

Applications > jfmateos-myyiot > MQTT

MQTT

The Application Server exposes an MQTT server to work with streaming events. In order to use the MQTT server you need to create a new API key, which will function as connection password. You can also use an existing API key, as long as it has the necessary rights granted. Use the connection information below to connect.

Connection credentials

| | | |
|--------------------|---|--|
| Public address | eu1.cloud.thethings.network:1883 | |
| Public TLS address | eu1.cloud.thethings.network:8883 | |
| Username | jfmateos-myyiot@ttn | |
| Password | Generate new API key Go to API keys | |

MQTT: Suscripción con Node-RED

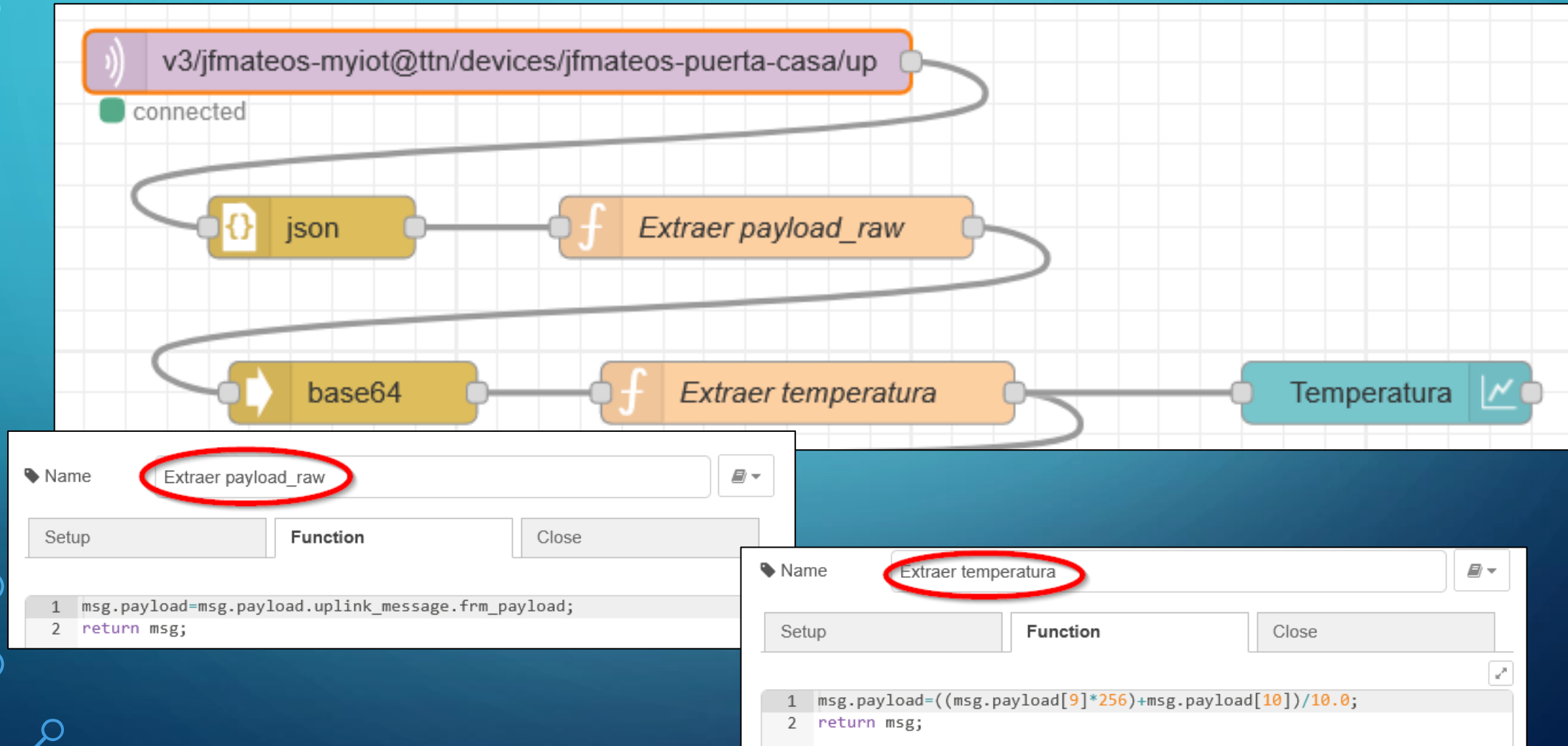
The image shows the Node-RED interface with several panels illustrating the configuration of an MQTT subscription node.

Main Interface: The top panel shows the 'network' tab with a search filter 'filter nodes'. The 'mqtt in' node is highlighted with a red circle, and a red arrow points to the 'v3/jfmateos-myyiot@ttn/devices/jfmateos-puerta-casa/up' topic.

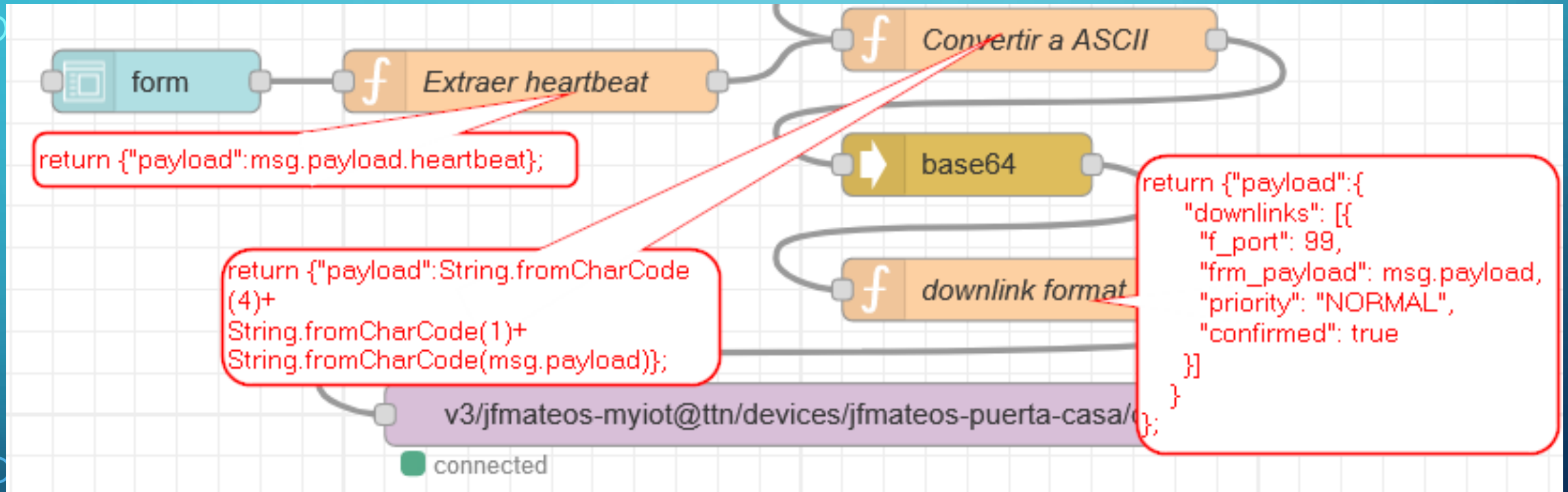
Edit mqtt in node: This panel shows the configuration for the selected node. The 'Topic' field is highlighted with a red box and contains the value 'v3/jfmateos-myyiot@ttn/devices/jfmateos-puerta-casa/up'. A red speech bubble points to this field with the text 'v3/jfmateos-myyiot@ttn/devices/jfmateos-puerta-casa/up'.

Edit mqtt-broker node: This panel shows the configuration for the MQTT broker. The 'Server' field is highlighted with a red circle and contains the value 'eu1.cloud.thethings.network:1883'. The 'Name' field contains 'ttnv3'. The 'Username' field contains 'jfmateos-myyiot@ttn' and the 'Password' field contains a masked value '.....'. Red speech bubbles point to these fields with the text 'Username' and 'Apikey'.

Node-RED: Mostrar datos en un dashboard

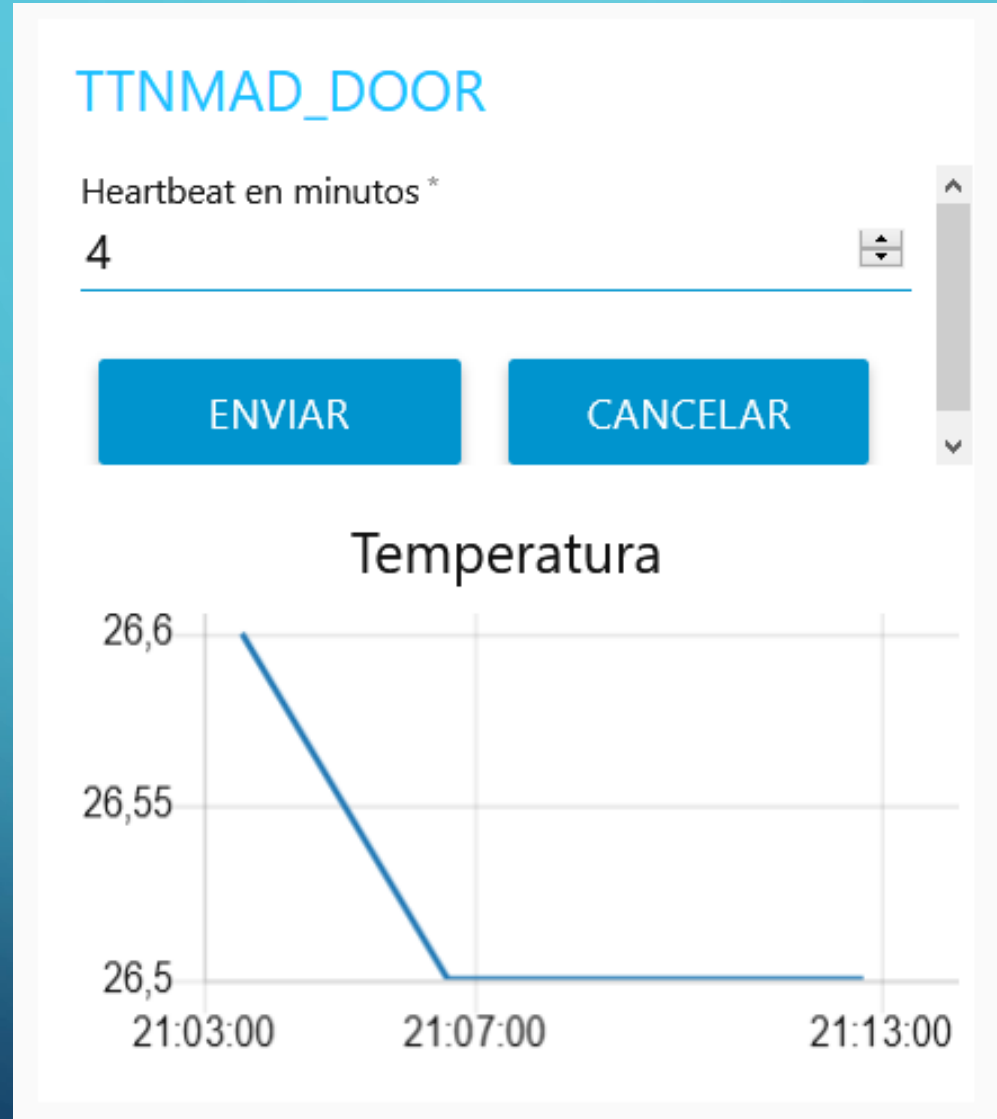


MQTT: Publicación de downlink con Node-RED



v3/jfmateos-myyiot@ttn/devices/jfmateos-puerta-casa/down/replace

Node-RED: Aspecto final del dashboard



Node-RED & Blynk

Account: Juan F. Mateos (jfmateos) | UPGRADE NOW!

Account Actions: ACCOUNT | SUBSCRIPTIONS | LOGOUT

Node-RED Instance: Your instance has been running for **12 m 48 s**

API Key: cc57bf698bf7cf3fe95ea4b...174817c

Instance Stats:

- Enable Public Dashboard: PAID FEATURE
- Node Count: 81/50
- Running Time Limit: 24 hours
- Nodes Installed: 13

Actions: STOP INSTANCE | CONSOLE

Tools: Add or Remove Nodes

Services: FRED-1.9.1

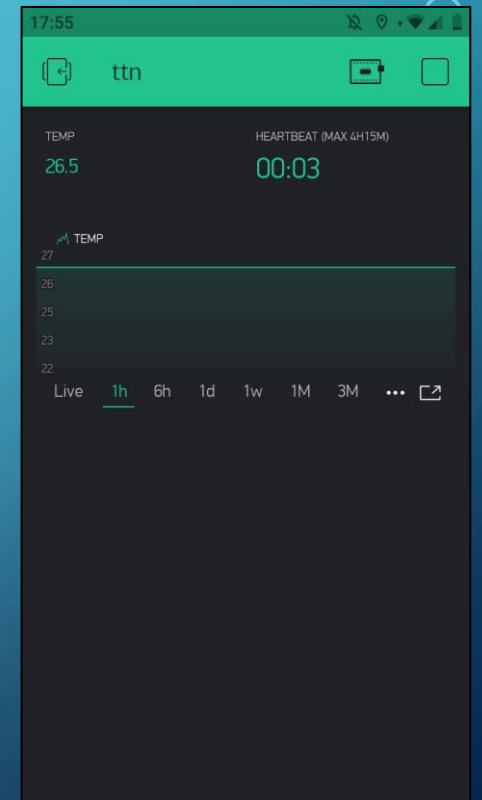
Search: blynk

Services List:

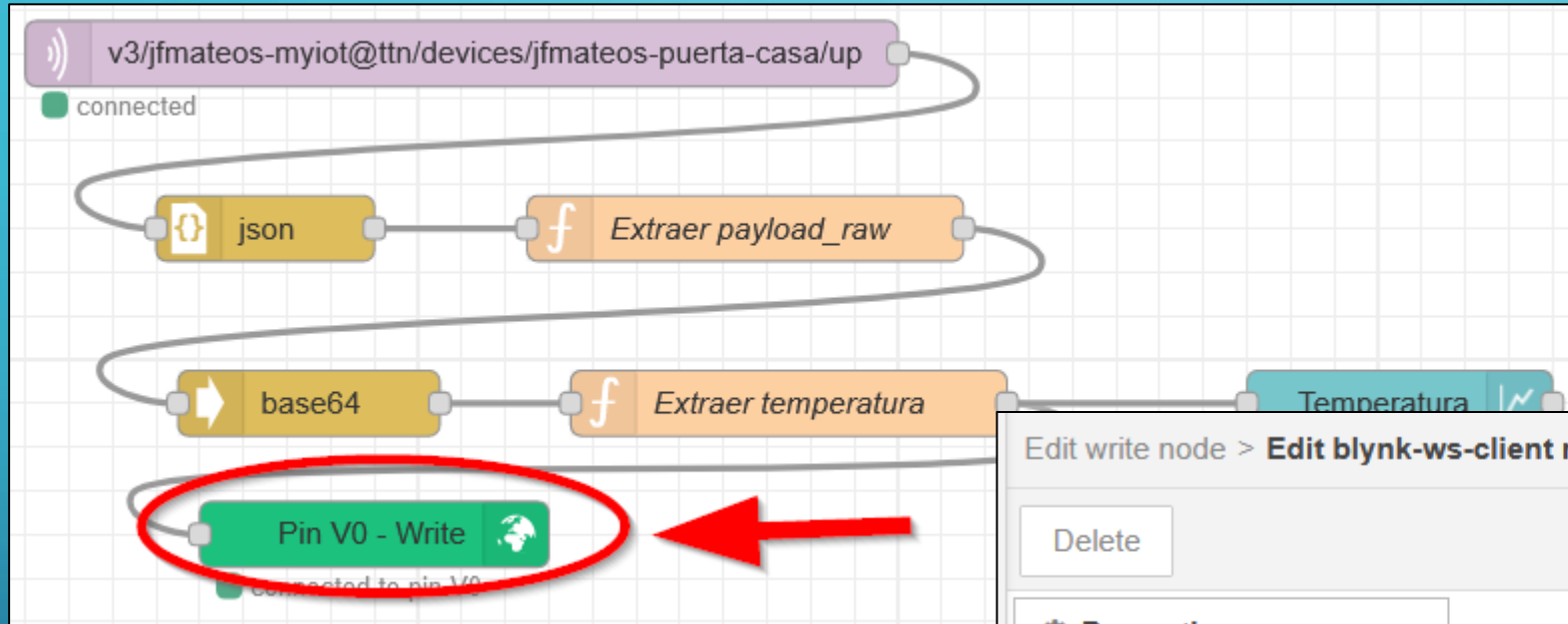
- Blynk-websockets (Legacy)** (legacy version) Node Red integration with Blynk App and Server through websockets
- Blynk-ws** Node Red integration with Blynk App and Server through websockets (Selected)

Blynk ws

- read event
- write event
- app event
- write
- set property
- email
- lcd
- notify
- out table



Node-RED & Blynk: Uplinks



Edit write node > Edit blynk-ws-client node

Delete Cancel Update

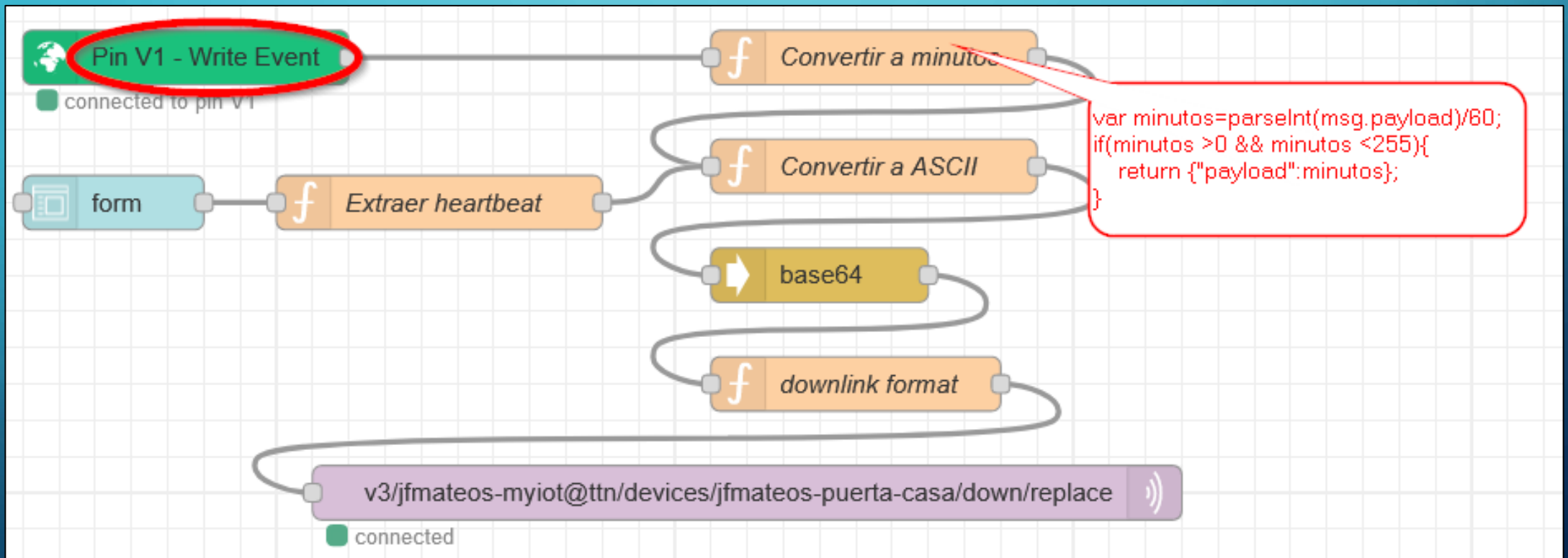
⚙ Properties

📄 Url

🔑 Project key

🔗 Protocol Log ☐ All ☐ Property ☐ Low Level
☐ Read ☐ Notify
☐ Write ☐ Mail

Node-RED & Blynk: Downlinks



CallMeBot: Alertas desde Whatsapp

