Casa connessa pilotata ad eventi

Event-Driven Ansible con Zigbee2MQTT

EXTRAORDY
La formazione ufficiale Red Hat • WeAreProject

Red Hat

Lorenzo Prosseda

(GitHub, Telegram: **procsiab**)

- 👍 Microcontrollori di Espressif
- 👍 Osservare con soddisfazione l’operazione di un sistema autonomo
- 👍 Documenti formattati in LaTeX
- 🥁 Suonare la batteria

EXTRAORDY
La formazione ufficiale Red Hat • WeAreProject
Red Hat
ANSIBLE
egram:
pro
Microcon
Espressi
Osservar
soddisfazio
l'operazione di un
sistema autonomo
ocumenti formattati
LaTeX
onare la batteria

Casa connessa

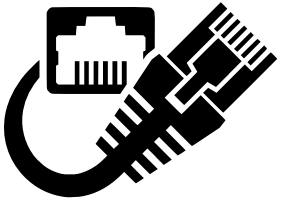
zigbee

WiFi

KNX

THREAD

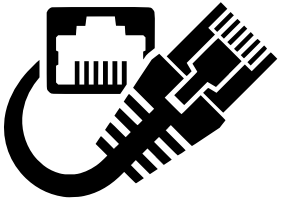
Bluetooth®



Z-WAVE®

LoRa

🏠 Casa connessa



Smart Home™ ≠ Casa furba

works with
Gulag Home
Works with
Apple HomeSh*t
works with
alezza

Home Assistant

OpenHAB

Sistema di automazione locale

🔗 No dipendenze esterne

🔎 Controllo su SW e HW

⏰ Ciclo di vita senza fretta

🤝 Integrazione senza limiti

Sistema di automazione locale

- 🔗 No dipendenze esterne
- 🔎 Controllo su SW e HW
- ⏰ Ciclo di vita senza fretta
- 🤝 Integrazione senza limiti

Sistema di automazione locale

🚚 HW aggiuntivo

🪛 Manutenzione

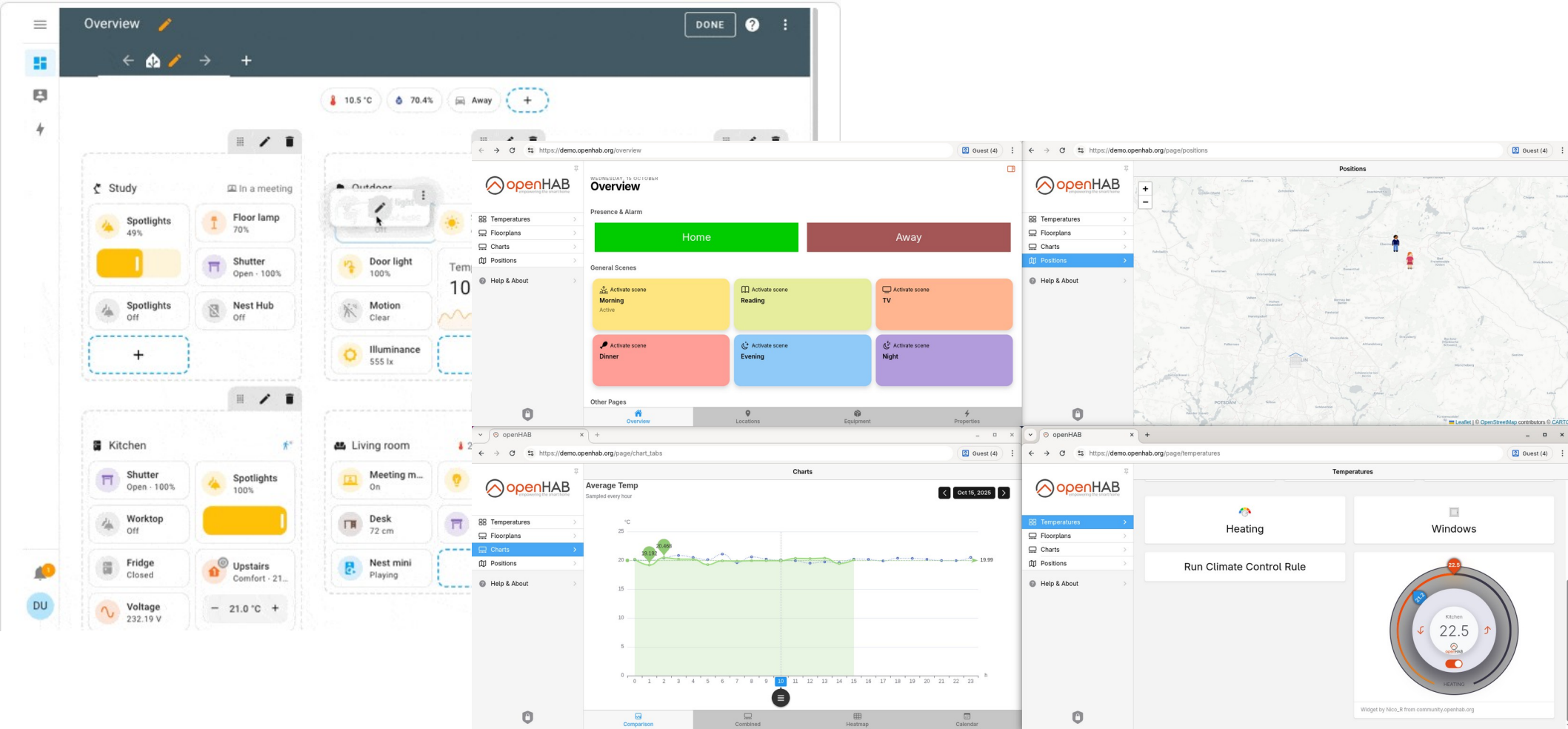
🧪 Competenze specifiche

🤔 “Troppa” scelta

Sistema di automazione locale

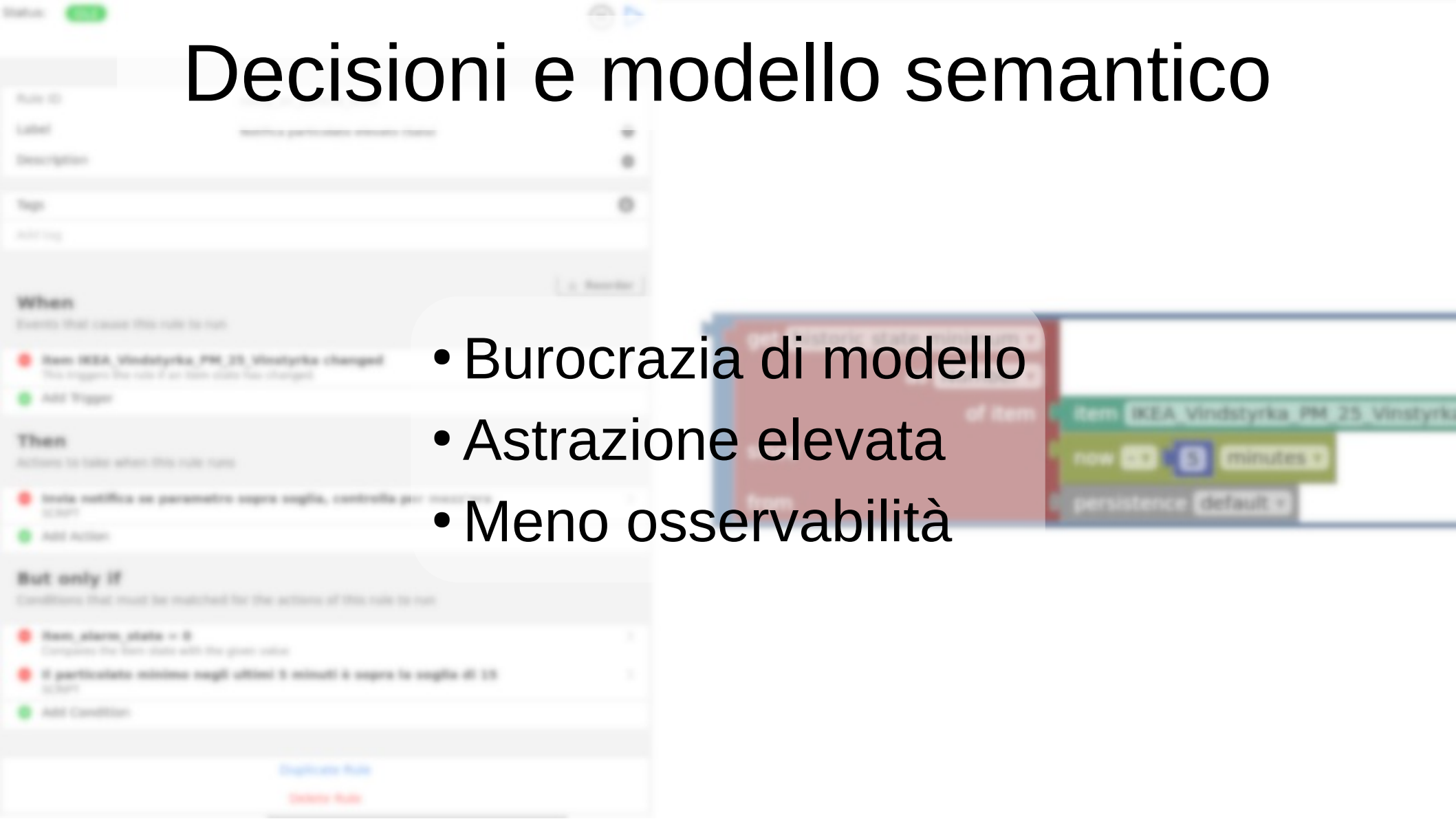
- 🚚 HW aggiuntivo
- 🪛 Manutenzione
- 🧪 Competenze specifiche
- 🤔 “Troppa” scelta

Dashboard edulcorate



Decisioni e modello semantico

- Burocrazia di modello
- Astrazione elevata
- Meno osservabilità



Allocazione di risorse

ID	NAME	CPU %	MEM USAGE / LIMIT	MEM %	NET IO	BLOCK IO	PIDS	CPU TIME	AVG CPU%
583e9f658dd0	influxdb	0.76%	438.4MB / 8.064GB	5.44%	206B / 5.756kB	0B / 0B	22	29m29.066693s	0.76%
0f0d7daf495d	openhab	0.86%	1.51GB / 8.064GB	18.72%	0B / 0B	0B / 0B	305	33m12.19151s	0.86%
11e6cc6cc3c0	zigbee2mqtt	1.67%	159.6MB / 8.064GB	1.98%	61.28MB / 63.28MB	0B / 0B	12	1h5m0.728188s	1.67%
4d7a2155d8d0	mosquitto	0.06%	8.929MB / 8.064GB	0.11%	0B / 0B	0B / 0B	1	2m15.807212s	0.06%

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
docker.io/library/influxdb	2.7.12	b4355848b856	3 months ago	383 MB
docker.io/openhab/openhab	5.0.1-alpine	0f125ee0d8e3	8 weeks ago	560 MB
docker.io/koenkk/zigbee2mqtt	2.6.2	ae5e6f614bf2	13 days ago	169 MB
docker.io/library/eclipse-mosquitto	2.0.22	be9a1b48937a	3 months ago	17.4 MB

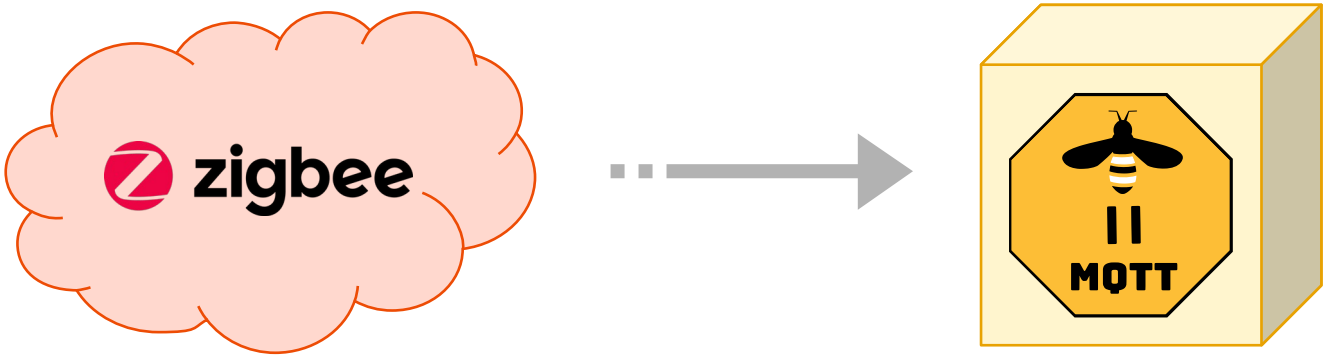
Un sistema ben congegnato

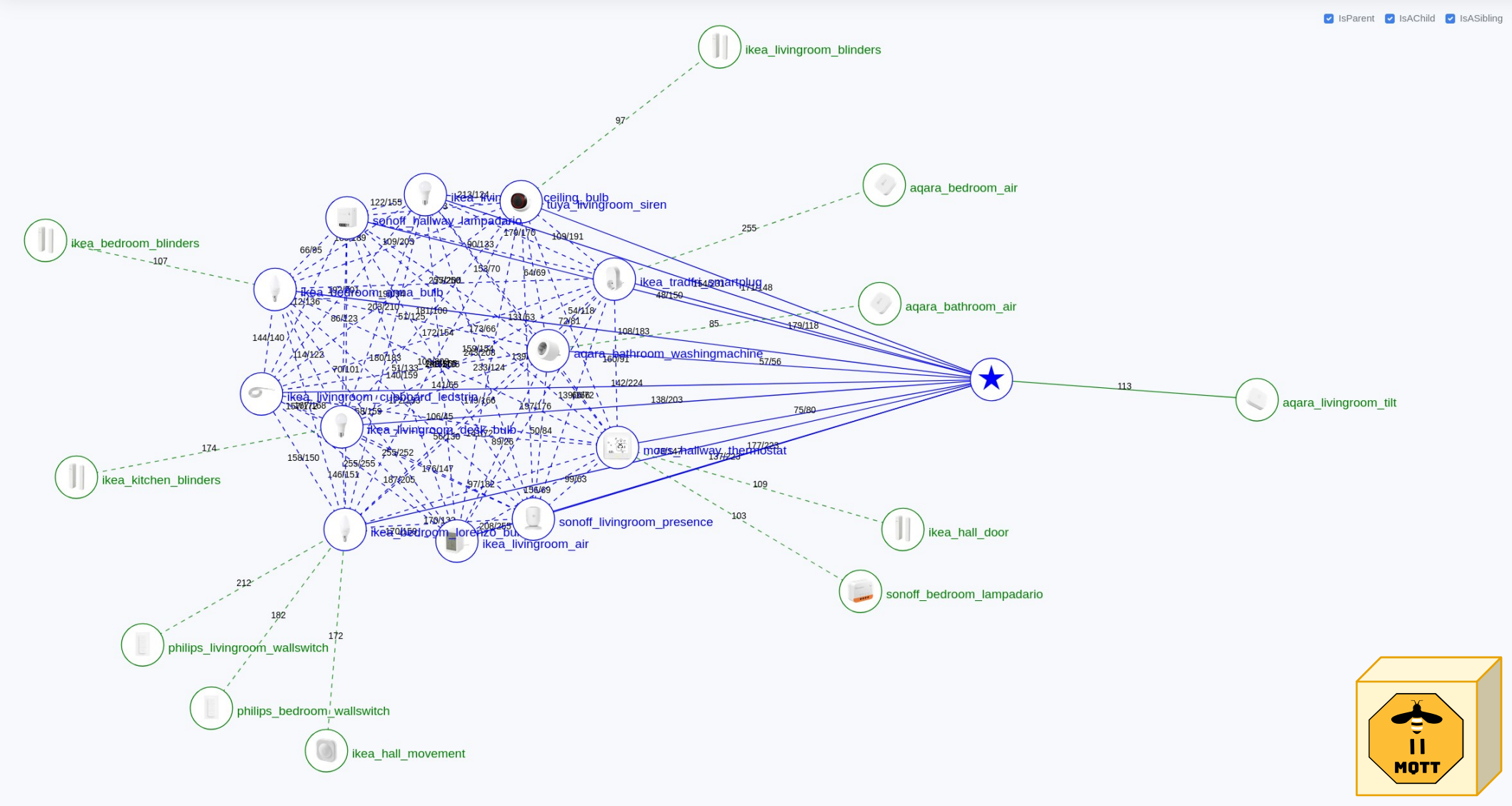
Fonte: Reddit, 🔗Articolo

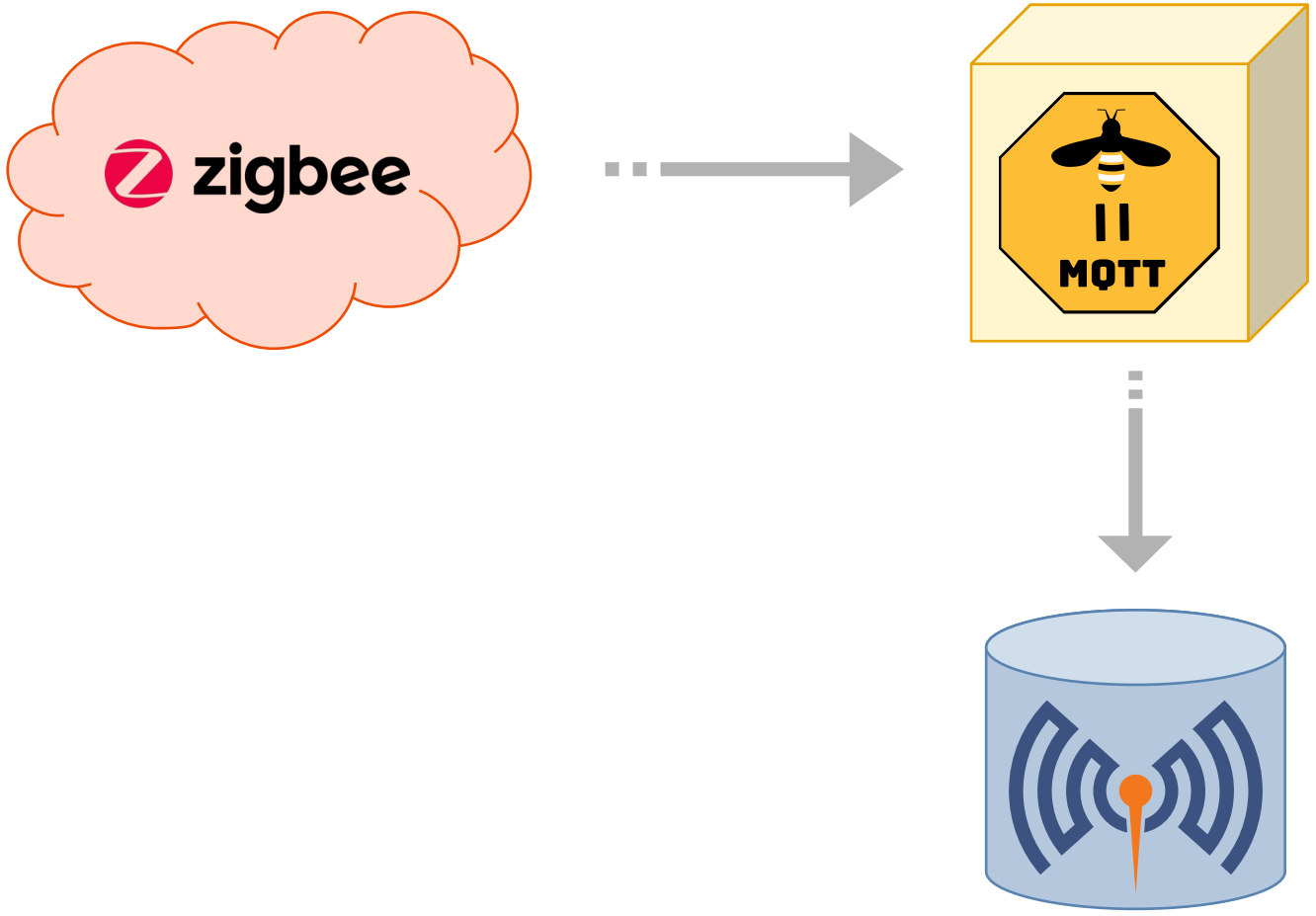
Scotch™

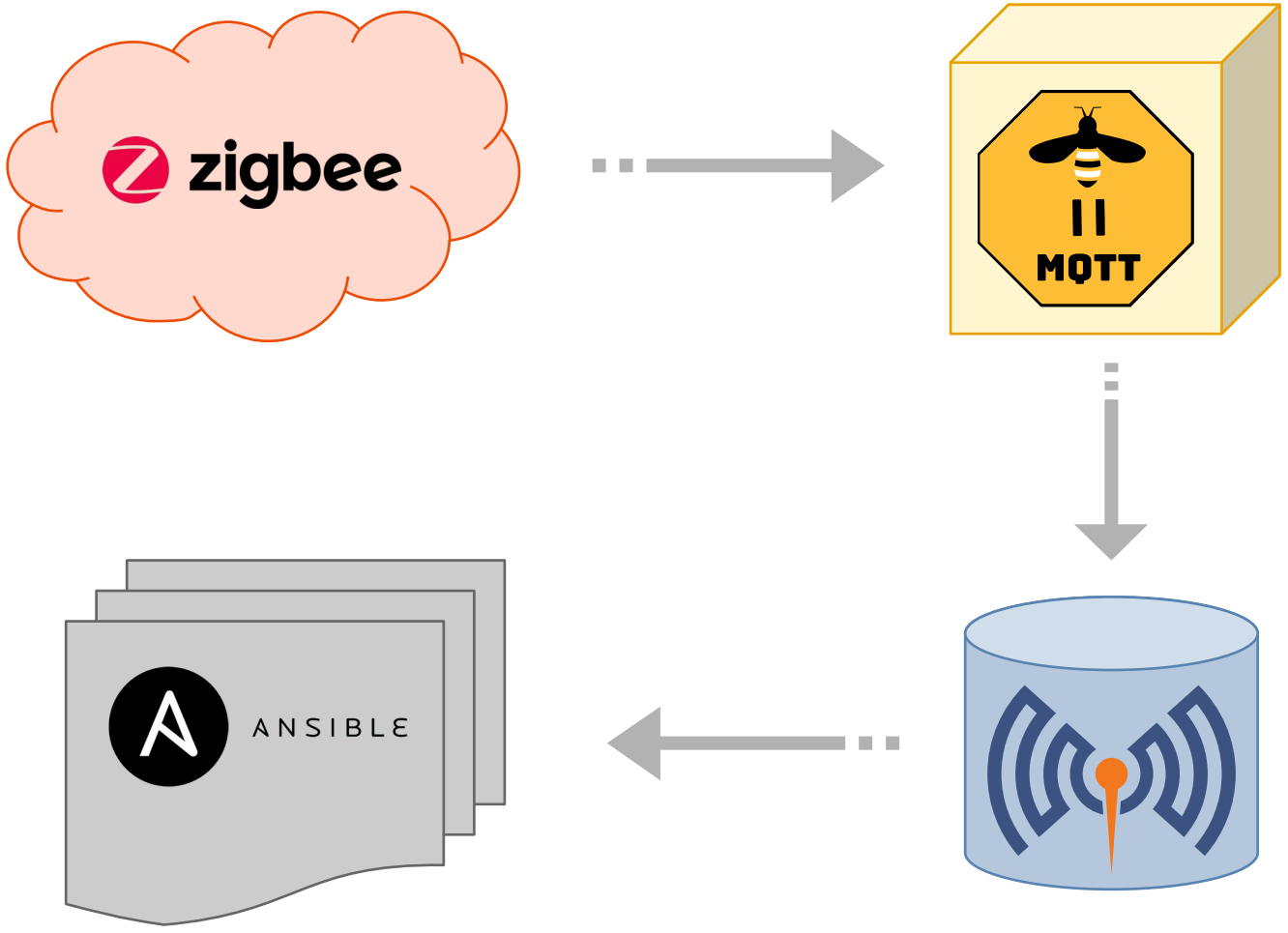
(Message Queuing Telemetry Transport)

zigbee

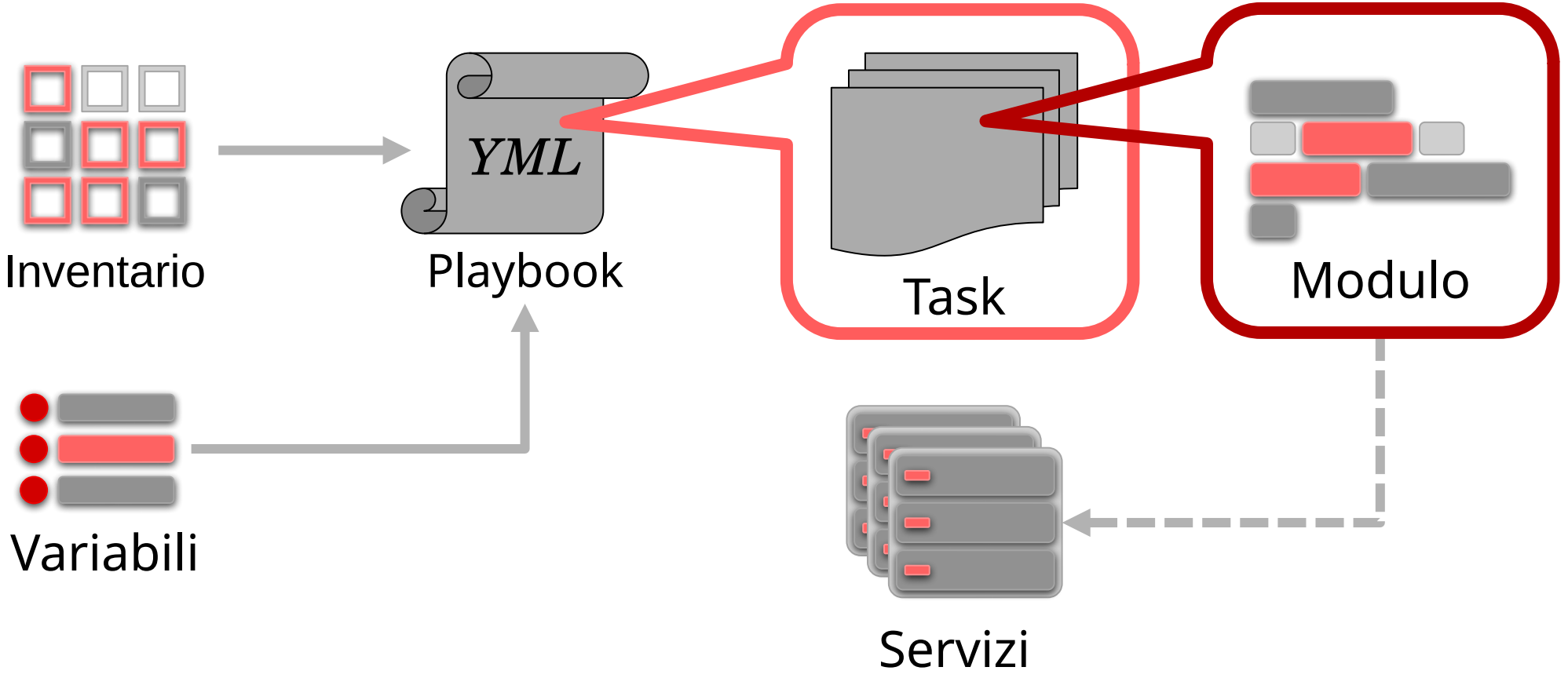

zigbee
MQTT

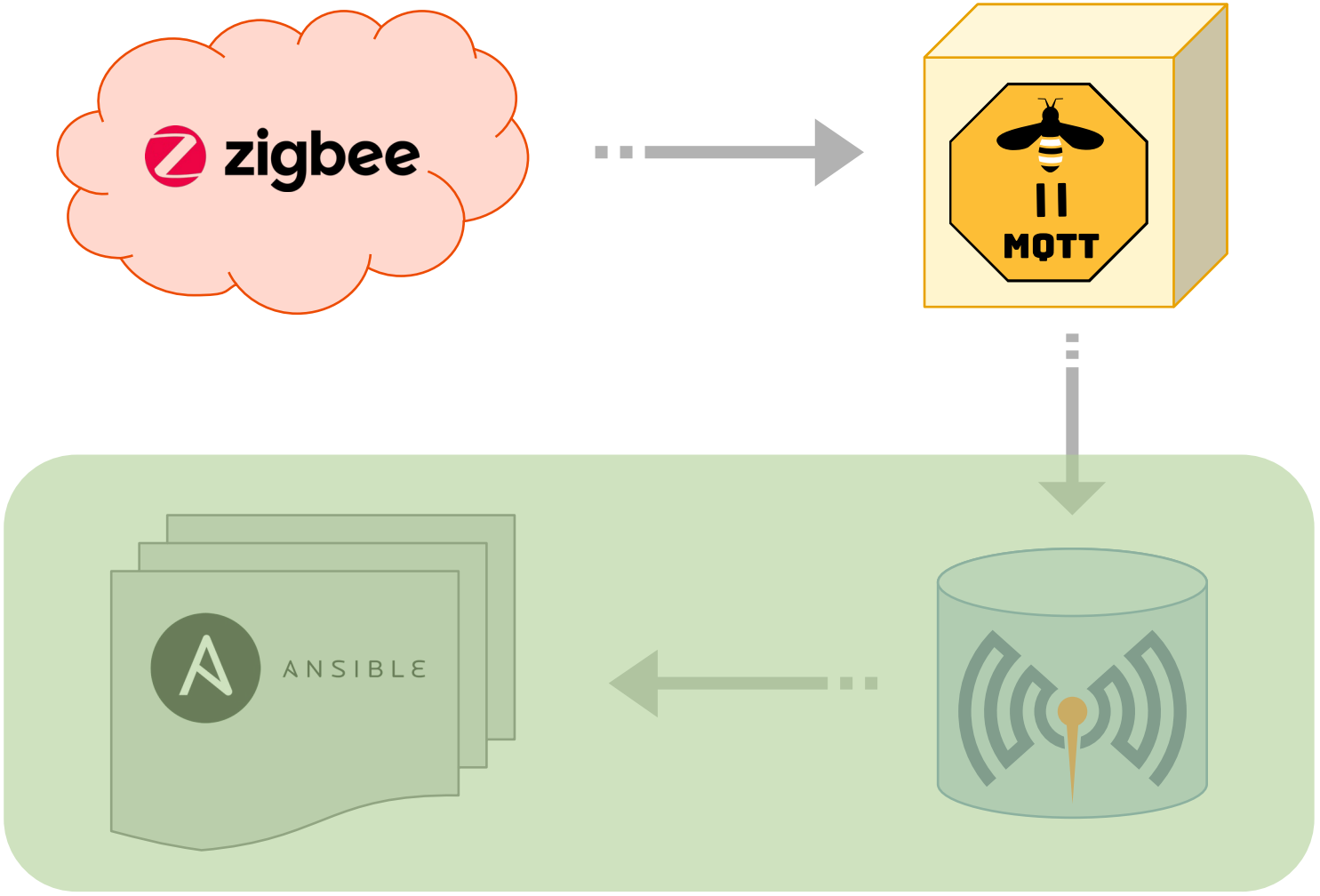

IsParent
IsAChild
IsASibling
ikea_livingroom_blinders
aqara_bedroom_air
ikea_bedroom_blinders
aqara_bathroom_air
aqara_bathroom_washingmachine
aqara_livingroom_tilt
ikea_livingroom_cupboard_ledstrip
ikea_livingroom_desk_bulb
sonoff_hallway_thermostat
ikea_kitchen_blinders
sonoff_livingroom_presence
ikea_hall_door
ikea_livingroom_air
sonoff_bedroom_lampadario
philips_livingroom_wallswitch
philips_bedroom_wallswitch
ikea_hall_movement
MQTT


zigbee
MQTT


zigbee
MQTT
ANSIBLE

Componenti di Ansible




zigbee
MQTT
ANSIBLE

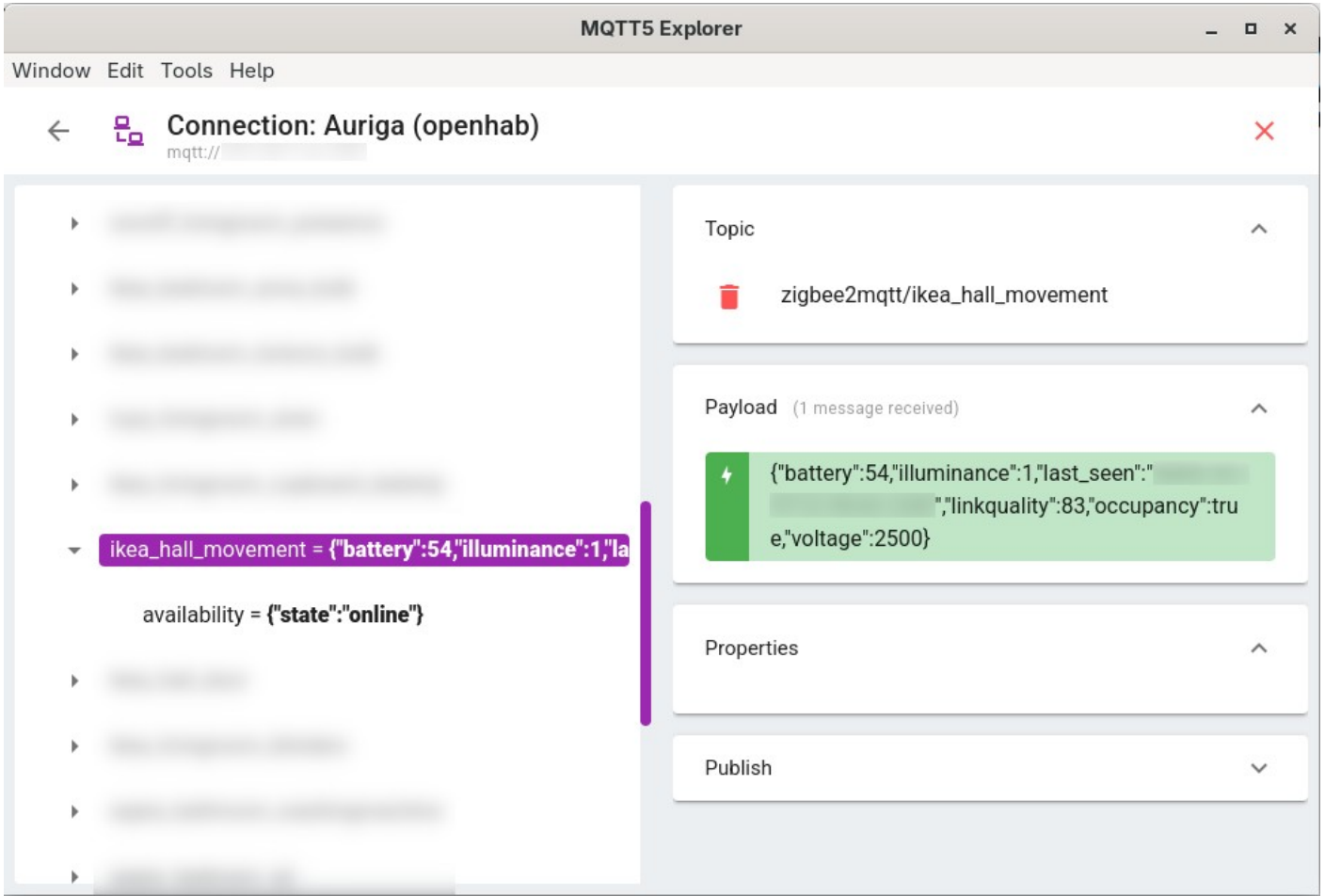
Luce comandata con movimento

Passo davanti a un sensore di movimento

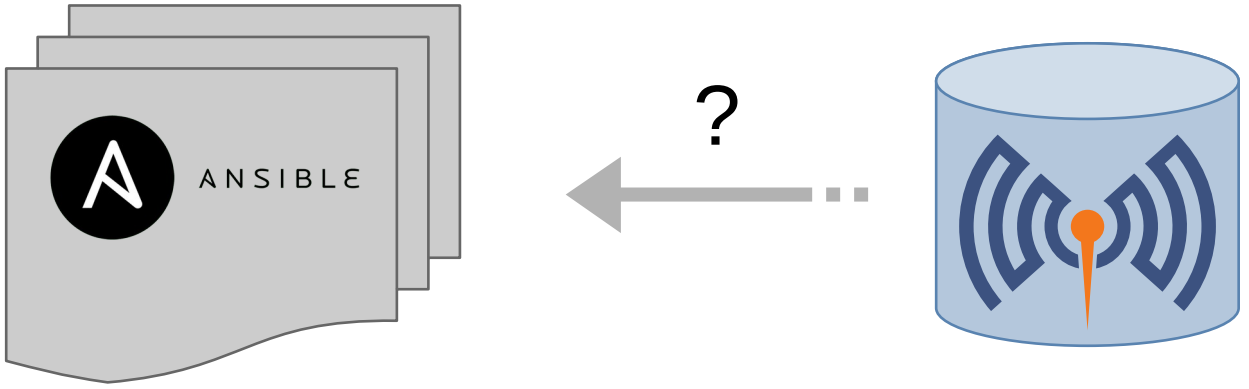
Zigbee2MQTT riporta al broker

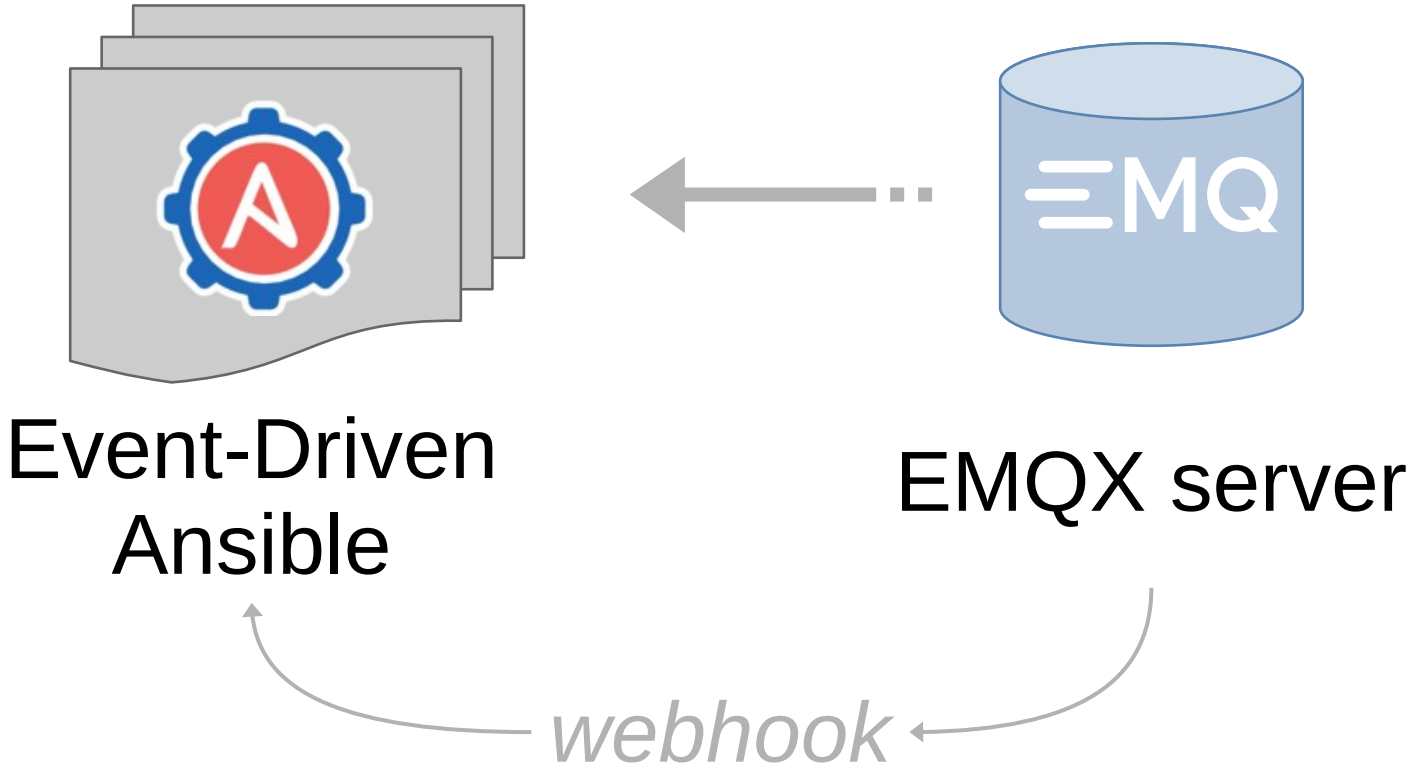
```
[2025-10-25 11:15:23] info: z2m:mqtt: MQTT
publish: topic
'zigbee2mqtt/ikea_hall_movement', payload
'{"battery":54, "illuminance":1,
"last_seen":"2025-10-25T09:15:23.766Z",
"linkquality":40, "occupancy":true,
"voltage":2500}'
```

Il broker mantiene il messaggio



Ansible aspetta invano


ANSIBLE
?


Event-Driven
Ansible
EMQX server
webhook

🧐 EMQX server

🔗 Installazione

🔗 Creazione topic

🔗 Preparazione webhook

🚀 EDA

🔗 Installazione

🔗 Scrittura rulebook

🔗 Pubblicazione su broker MQTT

Interfaccia per gestire i rulebook
You have become the very thing you swore to destroy

EDA server

🔗 Installazione

🔗 Utilizzo EDA controller

Allocazione di risorse con passaggi extra

NAME	CPU %	MEM USAGE / LIMIT	MEM %	BLOCK IO	PIDS	CPU TIME	AVG CPU%
postgres_1	0.93%	24.79MB / 16.47GB	0.15%	46.65MB/1.716MB	9	911.298ms	0.93%
redis_1	0.40%	6.136MB / 16.47GB	0.04%	18.22MB / 0B	5	394.725ms	0.40%
podman_1	0.52%	41.89MB / 16.47GB	0.25%	32.71MB / 929.8kB	25	499.735ms	0.52%
eda-api_1	46.60%	660.4MB / 16.47GB	4.01%	148.8MB / 0B	5	42.55578s	46.60%
eda-sched_1	6.43%	169.1MB / 16.47GB	1.03%	81.57MB / 0B	1	5.869021s	6.43%
eda-ui_1	0.10%	5.628MB / 16.47GB	0.03%	4.915MB / 28.67kB	3	59.26ms	0.10%
eda-ws_1	11.86%	164.4MB / 16.47GB	1.00%	553kB / 0B	1	7.154539s	11.86%
eda-dwrk_1	12.92%	165.3MB / 16.47GB	1.00%	122.9kB / 0B	2	7.784022s	12.92%
eda-awrk_1	11.82%	165.6MB / 16.47GB	1.01%	73.73kB / 0B	2	7.137949s	11.82%
emqx	46.34%	385.1MB / 16.47GB	2.34%	237.3MB / 8.094MB	60	26.857738s	46.34%

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
procsiab/linuxday2025-decision-env	0.0.6	d38dc4c74c82	22 minutes ago	796 MB
quay.io/ansible/eda-ui	main	ec11d007987f	9 days ago	72.1 MB
quay.io/sclorg/postgresql-13-c9s	latest	1c071c0658cc	9 days ago	383 MB
docker.io/emqx/emqx-enterprise	6.0.0	53c9fdc3475c	3 weeks ago	270 MB
quay.io/ansible/eda-server	main	15d174fc7485	3 weeks ago	1.09 GB
quay.io/ansible/ansible-rulebook	latest	7056dc0614e7	5 weeks ago	1.53 GB
quay.io/sclorg/redis-6-c9s	latest	c7ac11061bbe	9 months ago	280 MB
quay.io/containers/podman	v4	366b6e1c31a3	18 months ago	493 MB

Posso aggiungere altro Scotch™?