ESPHOME

ESP32 cam

- rtsp into esp32cam progress

```
#!/bin/sh

TOKEN=...

PAYLOAD="{\"directive\": {\"header\": {\"namespace\": \"Alexa.Discovery\",
\"name\": \"Discover\", \"payloadVersion\": \"3\", \"messageId\":
\"8db404f7-f5a1-495e-9a30-3a8af3bf94e0\"}, \"payload\": {\"scope\":
{\"type\": \"BearerToken\", \"token\": \"...\"}}}}"


curl -q -X POST \
  -d "$PAYLOAD" \
  -H "Authorization: Bearer $TOKEN" \
  -H "Content-Type: application/json" \
  http://localhost:8123/api/alexa/smart_home | jq
'.event.payload.endpoints[] | select(.displayCategories[0]=="CAMERA")'
```

in esp32 cam this section is missing in “capabilities”

```
{
      "type": "AlexaInterface",
      "interface": "Alexa.CameraStreamController",
      "version": "3",
      "cameraStreamConfigurations": [
        {
          "protocols": [
            "HLS"
          ],
          "resolutions": [
            {
              "width": 1280,
              "height": 720
            }
          ],
          "authorizationTypes": [
            "NONE"
          ],
          "videoCodecs": [
            "H264"
          ],
          "audioCodecs": [
            "AAC"
```

```
          ]
        }
      ]
    },
```

esp32 entry (missing some values)

```
{
  "displayCategories": [
    "CAMERA"
  ],
  "cookie": {},
  "endpointId": "camera#citofono",
  "friendlyName": "citofono",
  "description": "camera.citofono via Home Assistant",
  "manufacturerName": "Home Assistant",
  "additionalAttributes": {
    "manufacturer": "Home Assistant",
    "model": "camera",
    "softwareVersion": "2021.6.6",
    "customIdentifier": "-camera.citofono"
  },
  "capabilities": [
    {
      "type": "AlexaInterface",
      "interface": "Alexa.EndpointHealth",
      "version": "3",
      "properties": {
        "supported": [
          {
            "name": "connectivity"
          }
        ],
        "proactivelyReported": true,
        "retrievable": true
      }
    },
    {
      "type": "AlexaInterface",
      "interface": "Alexa",
      "version": "3"
    }
  ]
}
```

valid stream camera working in alexa

```
{
  "displayCategories": [
    "CAMERA"
  ],
```

```
  "cookie": {},
  "endpointId": "camera#cancello",
  "friendlyName": "camera cancello",
  "description": "camera.cancello via Home Assistant",
  "manufacturerName": "Home Assistant",
  "additionalAttributes": {
    "manufacturer": "Home Assistant",
    "model": "camera",
    "softwareVersion": "2021.6.6",
    "customIdentifier": "-camera.cancello"
  },
  "capabilities": [
    {
      "type": "AlexaInterface",
      "interface": "Alexa.CameraStreamController",
      "version": "3",
      "cameraStreamConfigurations": [
        {
          "protocols": [
            "HLS"
          ],
          "resolutions": [
            {
              "width": 1280,
              "height": 720
            }
          ],
          "authorizationTypes": [
            "NONE"
          ],
          "videoCodecs": [
            "H264"
          ],
          "audioCodecs": [
            "AAC"
          ]
        }
      ]
    },
    {
      "type": "AlexaInterface",
      "interface": "Alexa.EndpointHealth",
      "version": "3",
      "properties": {
        "supported": [
          {
            "name": "connectivity"
          }
        ],
        "proactivelyReported": true,
        "retrievable": true
```

```
      }
    },
    {
      "type": "AlexaInterface",
      "interface": "Alexa",
      "version": "3"
    }
  ]
}
```

BLE tracker smartband

esphome

enable esp32*ble*tracker and a binary sensor on ble*presence* <*code*> *esp32*ble_tracker:

binary*sensor: - platform: ble*presence

```
  mac_address: E8:36:FD:20:E3:54
  id: miband_presence_scipio
  name: "MiBand presence scipio"
```

</code>

hass

automation directly on sensor created by esphome

```
- alias: cancello
  trigger:
    - entity_id: binary_sensor.miband_presence_scipio
      platform: state
      to: 'on'
      for:
        seconds: 2
    - entity_id: binary_sensor.miband_presence_scipio
      platform: state
      to: 'off'
      for:
        seconds: 2
  action:
    - service: notify.alexa_media
      data_template:
        message: >
          {% if is_state('binary_sensor.miband_presence_scipio', 'on') %}
            'Stefano è arrivato'
          {% else %}
```

```
            'Stefano è partito'
          {% endif %}
        data:
          type: announce
          method: all
        target:
          - show
          - Echo
```

example of added binary sensor defined on ble sensor

```
binary_sensor:
  - platform: template
    sensors:
      miband_scipio_sticky:
        value_template: >-
          {{is_state('binary_sensor.miband_presence_scipio', 'on')}}
        delay_off: 60
```

BLE bluetooth tracker (version 1)

hass input*boolean: <code yaml> beacon2*learn:

```
name: learn beacon2
initial: off
icon: mdi:mdi-tag-plus
```

beacon2_active:

```
name: beacon2 is recently seen
icon: mdi:mdi-account-check
```

beacon2_trigger:

```
name: beacon2 is now detected
initial: off
icon: mdi:mdi-account-check
```

</code>

hass input_text:

```
beacon1:
  name: BLE beacon1

beacon2:
  name: BLE beacon2
```

hass scripts:

```
set_ibeacon:
  sequence:
    - condition: template
      value_template: "{{ ibeacon != '' }}"
    - service: script.set_beacon1
      data_template:
        ibeacon: "{{ ibeacon }}"
    - service: script.set_beacon2
      data_template:
        ibeacon: "{{ ibeacon }}"

set_beacon2:
  sequence:
    - service: script.beacon2_active
      data_template:
        ibeacon: "{{ ibeacon }}"
    - condition: state
      entity_id: input_boolean.beacon2_learn
      state: "on"
    - service: input_text.set_value
      data_template:
        entity_id: input_text.beacon2
        value: "{{ ibeacon }}"
    - service: input_boolean.turn_off
      entity_id: input_boolean.beacon2_learn

beacon2_active:
  sequence:
    - condition: template
      value_template: "{{ ibeacon == states('input_text.beacon2') }}"
    - service: input_boolean.turn_on
      entity_id: input_boolean.beacon2_trigger
    - delay: 1
    - service: input_boolean.turn_off
      entity_id: input_boolean.beacon2_trigger
```

hass automations:

```
- alias: "beacon2 is active"
  trigger:
    platform: state
    entity_id: input_sensor.beacon2_trigger
    to: "on"
  condition:
    condition: state
    entity_id: input_boolean.beacon2_active
    state: "off"
  action:
    - service: input_boolean.turn_on
      entity_id: input_boolean.beacon2_active
```

```
    - service: notify.alexa_media
      data:
        message: "Stefano è arrivato"
        data:
          type: announce
          method: all
        target:
          - show
          - Echo

- alias: "beacon2 is not active after last presence"
  trigger:
    platform: state
    entity_id: input_boolean.beacon2_trigger
    to: "off"
    for: 140
  action:
    - service: input_boolean.turn_off
      entity_id: input_boolean.beacon2_active
    - service: notify.alexa_media
      data:
        message: "Stefano è partito"
        data:
          type: announce
          method: all
        target:
          - show
          - Echo
```

panel

```
type: entities
entities:
  - entity: input_boolean.beacon2_learn
  - entity: input_text.beacon2
  - entity: input_boolean.beacon2_trigger
  - entity: input_boolean.beacon2_active
title: Tracker cancello
```

esphome

```
esp32_ble_tracker:
  on_ble_advertise:
    - then:
      - homeassistant.service:
          service: script.set_ibeacon
          data:
            ibeacon: !lambda |-
              for (auto data : x.get_manufacturer_datas()) {
                auto message = hexencode(data.data);
                ESP_LOGD("ble_adv", "manufacturer_data: %s [%d]",
```

```
message.c_str(), message.size());
                if (message.size() >= 73) {
                  /* ibeacon = e2c56db5-dffb-48d2-b060-d0f5a71096e0 */
                  auto ibeacon = message.substr(6, 2) + message.substr(9, 2)
+ message.substr(12, 2) + message.substr(15, 2) +
                    '-' + message.substr(18, 2) + message.substr(21, 2) +
                    '-' + message.substr(24, 2) + message.substr(27, 2) +
                    '-' + message.substr(30, 2) + message.substr(33, 2) +
                    '-' + message.substr(36, 2) + message.substr(39, 2) +
message.substr(42, 2) + message.substr(45, 2) + message.substr(48, 1);
                  return ibeacon.c_str();
                }
              }
              return "";
```

BLE bluetooth tracker (version 2)

```
text_sensor:
  - platform: template
    name: "BLE ibeacon"
    id: template_text


esp32_ble_tracker:
  on_ble_advertise:
    - then:
      - lambda: |-
          for (auto data : x.get_manufacturer_datas()) {
            auto message = hexencode(data.data);
            ESP_LOGD("ble_adv", "manufacturer_data: %s [%d]",
message.c_str(), message.size());
            if (message.size() >= 73) {
              /* ibeacon = e2c56db5-dffb-48d2-b060-d0f5a71096e0 */
              auto ibeacon = message.substr(6, 2) + message.substr(9, 2) +
message.substr(12, 2) + message.substr(15, 2) +
                '-' + message.substr(18, 2) + message.substr(21, 2) +
                '-' + message.substr(24, 2) + message.substr(27, 2) +
                '-' + message.substr(30, 2) + message.substr(33, 2) +
                '-' + message.substr(36, 2) + message.substr(39, 2) +
message.substr(42, 2) + message.substr(45, 2) + message.substr(48, 1);
              id(template_text).publish_state(ibeacon.c_str());
            }

          }
```

BLE bluetooth tracker (deprecated)

parameters to change:

- uuid: “02.15.E2.C5.6D.B5.DF.FB.48.D2.B0.60.D0.F5.A7.10.96.E0.00.01.00.02.C8 (23)”
- name: “scipio cell”

```
binary_sensor:
  - platform: template
    device_class: presence
    name: "scipio cell"
    id: beacon1

script:
  - id: ble_off_script
    mode: restart
    then:
      - binary_sensor.template.publish:
          id: beacon1
          state: true
      - delay: 60s
      - binary_sensor.template.publish:
          id: beacon1
          state: false


esp32_ble_tracker:
  on_ble_advertise:
    - then:
      - lambda: |-
          for (auto data : x.get_manufacturer_datas()) {
            if (strcmp(hexencode(data.data).c_str(),
"02.15.E2.C5.6D.B5.DF.FB.48.D2.B0.60.D0.F5.A7.10.96.E0.00.01.00.02.C8 (23)")
== 0) {
              ESP_LOGD("ble_adv", "beacon1 found");
              id(ble_off_script).execute();
            }
            else
            {
              ESP_LOGD("ble_adv", "    - %s", hexencode(data.data).c_str());
            }
          }
```