Publish Data to the IBM Cloud

Date	4 November 2022
Team Id	PNT2022TMID17100
Project Name	Project - Signs with smart connectivity for Better road safety

Signs with smart connectivity for Better road safety

Python code to access subscriber:

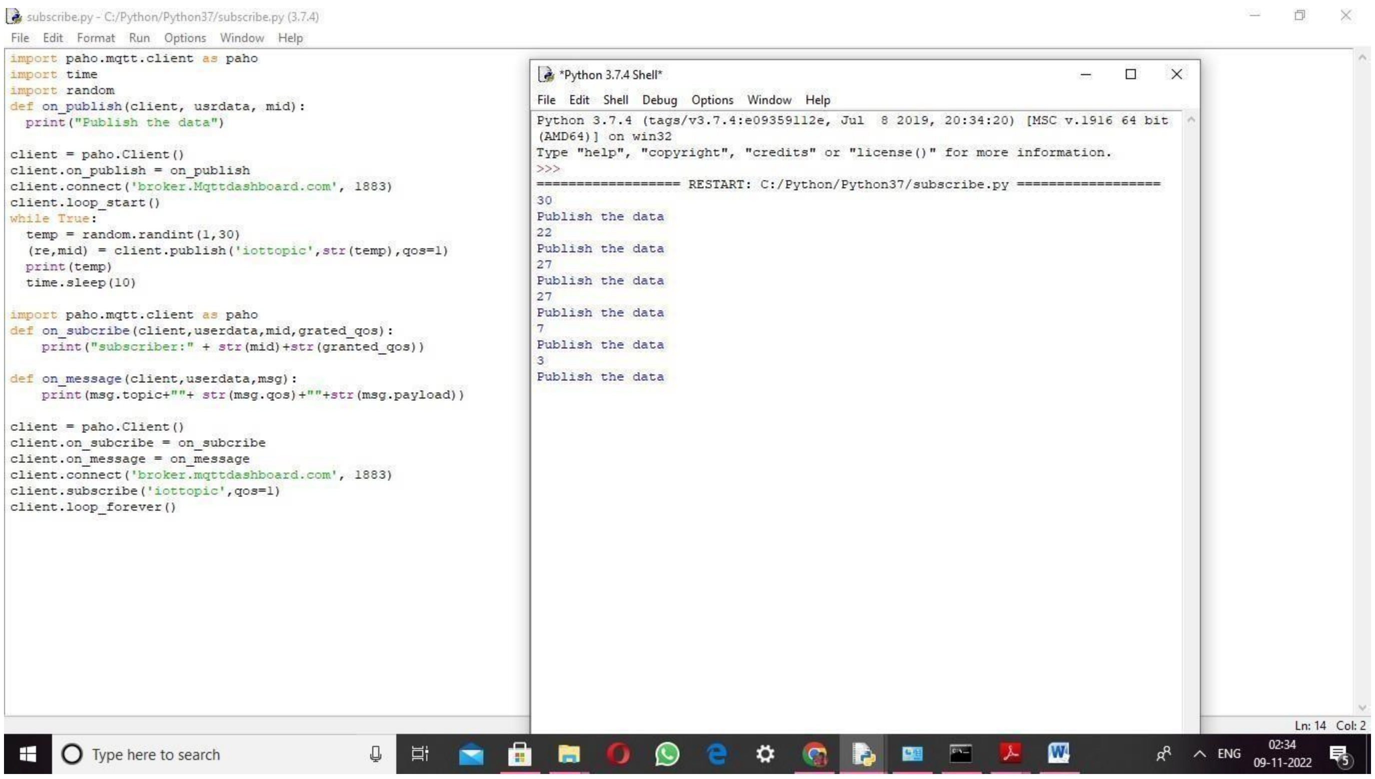
```
import paho.mqtt.client as paho
import time
import random
def on_publish(client, usrdata, mid):
  print("Publish the data")

client = paho.Client()
client.on_publish = on_publish
client.connect('broker.Mqttdashboard.com', 1883)
client.loop_start()
while True:
  temp = random.randint(1,30)
  (re,mid) = client.publish('iottopic',str(temp),qos=1)
  print(temp)
  time.sleep(10)

import paho.mqtt.client as paho
def on_subcribe(client,userdata,mid,grated_qos):
    print("subscriber:" + str(mid)+str(granted_qos))

def on_message(client,userdata,msg):
    print(msg.topic+""+ str(msg.qos)+""+str(msg.payload))

client = paho.Client()
client.on_subcribe = on_subcribe
client.on_message = on_message
client.connect('broker.mqttdashboard.com', 1883)
client.subscribe('iottopic',qos=1)
client.loop_forever()
```



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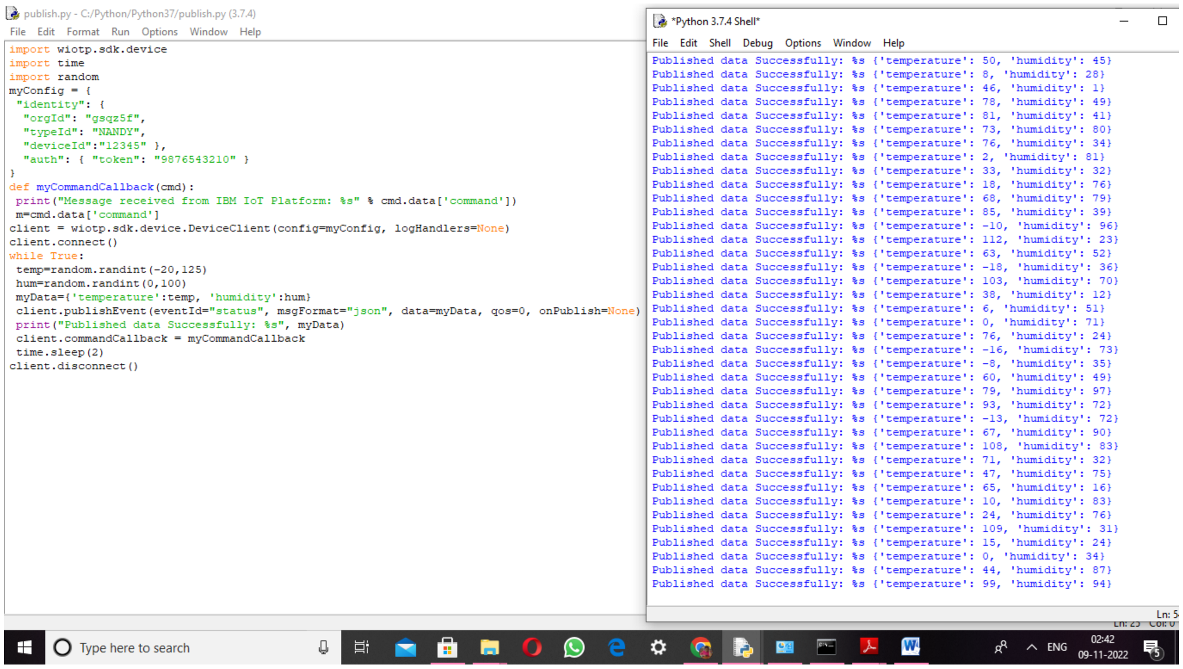
```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul  8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
================== RESTART: C:/Python/Python37/subscribe.py ==================
30
Publish the data
22
Publish the data
27
Publish the data
27
Publish the data
7
Publish the data
3
Publish the data
```

PROGRAM:

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
"identity": {
"orgId": "gsqz5f",
  "typeId": "NANDY",
  "deviceId":"12345" },
  "auth": { "token": "9876543210" }
}
def myCommandCallback(cmd):
 print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
 m=cmd.data['command']
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
 temp=random.randint(-20,125)
 hum=random.randint(0,100)
 myData={'temperature':temp, 'humidity':hum}
 client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
 print("Published data Successfully: %s", myData)
 client.commandCallback = myCommandCallback
 time.sleep(2)
client.disconnect()
```


publish.py - C:/Python/Python37/publish.py (3.7.4)
File Edit Format Run Options Window Help
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Type here to search
ENG
02:42
09-11-2022

```
import wiotp.sdk.device
import time
import random
myConfig = {
 "identity": {
  "orgId": "gsqz5f",
  "typeId": "NANDY",
  "deviceId":"12345" },
  "auth": { "token": "9876543210" }
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def myCommandCallback(cmd):
 print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
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 myData={'temperature':temp, 'humidity':hum}
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 print("Published data Successfully: %s", myData)
 client.commandCallback = myCommandCallback
 time.sleep(2)
client.disconnect()
```
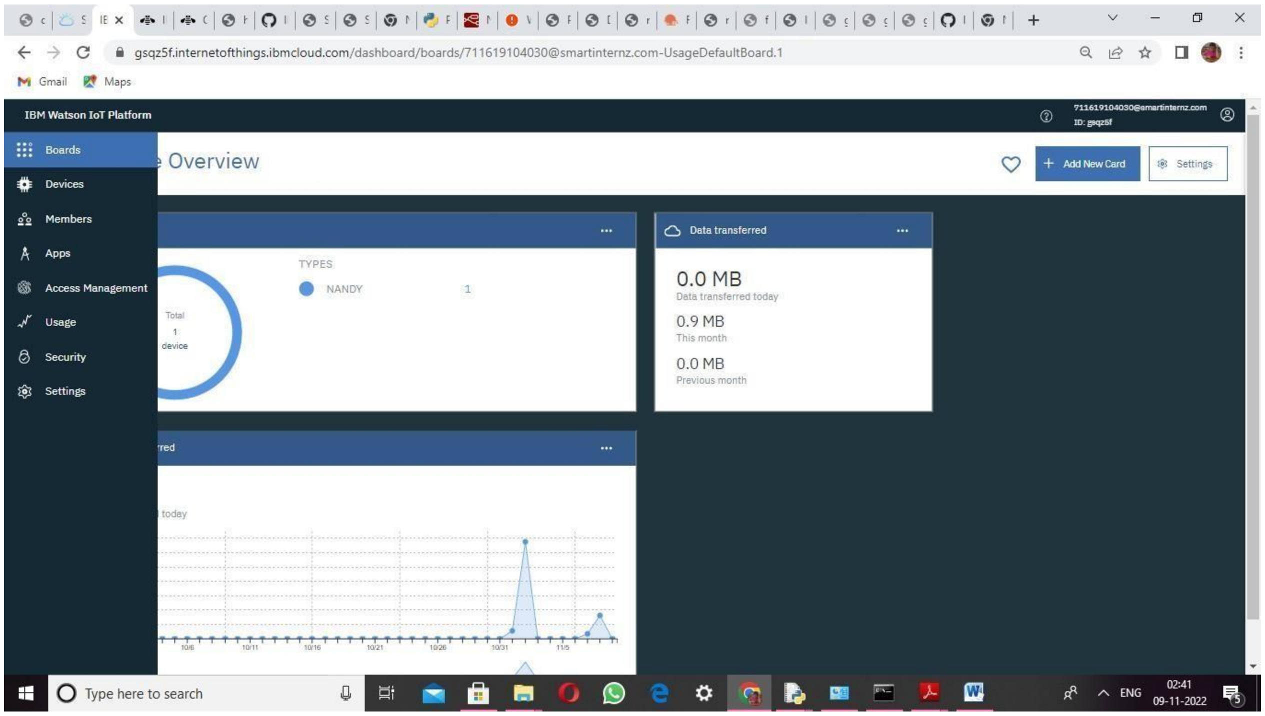

```
Published data Successfully: %s {'temperature': 50, 'humidity': 45}
Published data Successfully: %s {'temperature': 8, 'humidity': 28}
Published data Successfully: %s {'temperature': 46, 'humidity': 1}
Published data Successfully: %s {'temperature': 78, 'humidity': 49}
Published data Successfully: %s {'temperature': 81, 'humidity': 41}
Published data Successfully: %s {'temperature': 73, 'humidity': 80}
Published data Successfully: %s {'temperature': 76, 'humidity': 34}
Published data Successfully: %s {'temperature': 2, 'humidity': 81}
Published data Successfully: %s {'temperature': 33, 'humidity': 32}
Published data Successfully: %s {'temperature': 18, 'humidity': 76}
Published data Successfully: %s {'temperature': 68, 'humidity': 79}
Published data Successfully: %s {'temperature': 85, 'humidity': 39}
Published data Successfully: %s {'temperature': -10, 'humidity': 96}
Published data Successfully: %s {'temperature': 112, 'humidity': 23}
Published data Successfully: %s {'temperature': 63, 'humidity': 52}
Published data Successfully: %s {'temperature': -18, 'humidity': 36}
Published data Successfully: %s {'temperature': 103, 'humidity': 70}
Published data Successfully: %s {'temperature': 38, 'humidity': 12}
Published data Successfully: %s {'temperature': 6, 'humidity': 51}
Published data Successfully: %s {'temperature': 0, 'humidity': 71}
Published data Successfully: %s {'temperature': 76, 'humidity': 24}
Published data Successfully: %s {'temperature': -16, 'humidity': 73}
Published data Successfully: %s {'temperature': -8, 'humidity': 35}
Published data Successfully: %s {'temperature': 60, 'humidity': 49}
Published data Successfully: %s {'temperature': 79, 'humidity': 97}
Published data Successfully: %s {'temperature': 93, 'humidity': 72}
Published data Successfully: %s {'temperature': -13, 'humidity': 72}
Published data Successfully: %s {'temperature': 67, 'humidity': 90}
Published data Successfully: %s {'temperature': 108, 'humidity': 83}
Published data Successfully: %s {'temperature': 71, 'humidity': 32}
Published data Successfully: %s {'temperature': 47, 'humidity': 75}
Published data Successfully: %s {'temperature': 65, 'humidity': 16}
Published data Successfully: %s {'temperature': 10, 'humidity': 83}
Published data Successfully: %s {'temperature': 24, 'humidity': 76}
Published data Successfully: %s {'temperature': 109, 'humidity': 31}
Published data Successfully: %s {'temperature': 15, 'humidity': 24}
Published data Successfully: %s {'temperature': 0, 'humidity': 34}
Published data Successfully: %s {'temperature': 44, 'humidity': 87}
Published data Successfully: %s {'temperature': 99, 'humidity': 94}
```

Publish the data to the ibm cloud:

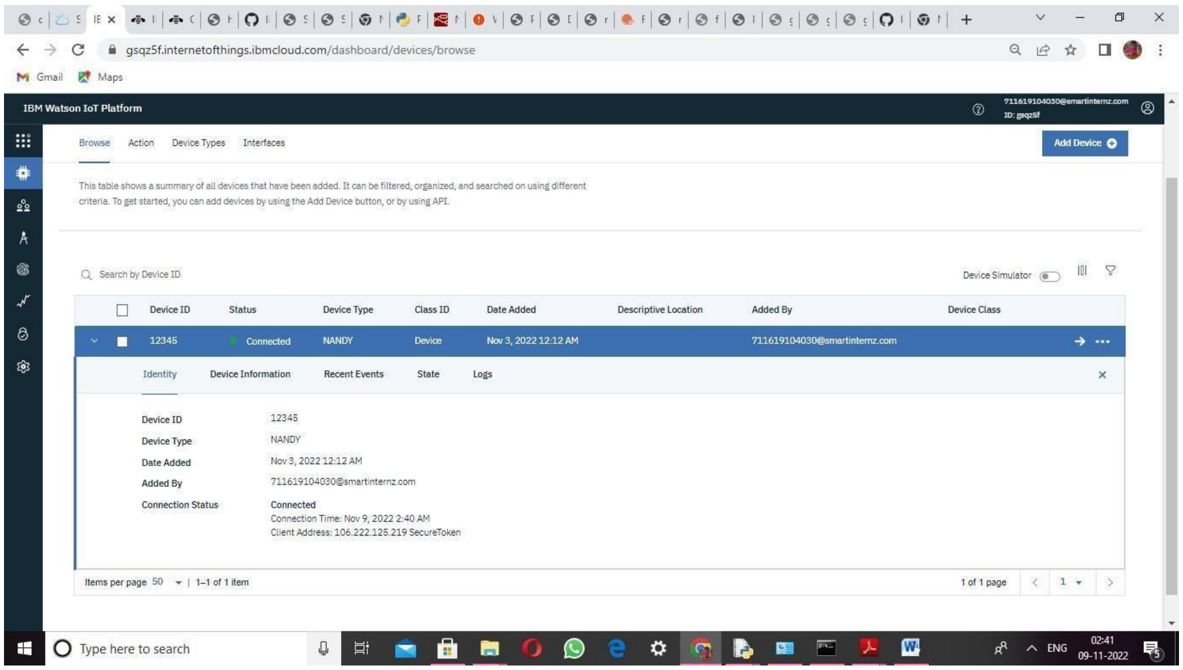


gsqz5f.internetofthings.ibmcloud.com/dashboard/boards/711619104030@smartinternz.com-UsageDefaultBoard.1

IBM Watson IoT Platform

Overview

Data transferred	
0.0 MB	Data transferred today
0.9 MB	This month
0.0 MB	Previous month



gsqz5f.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

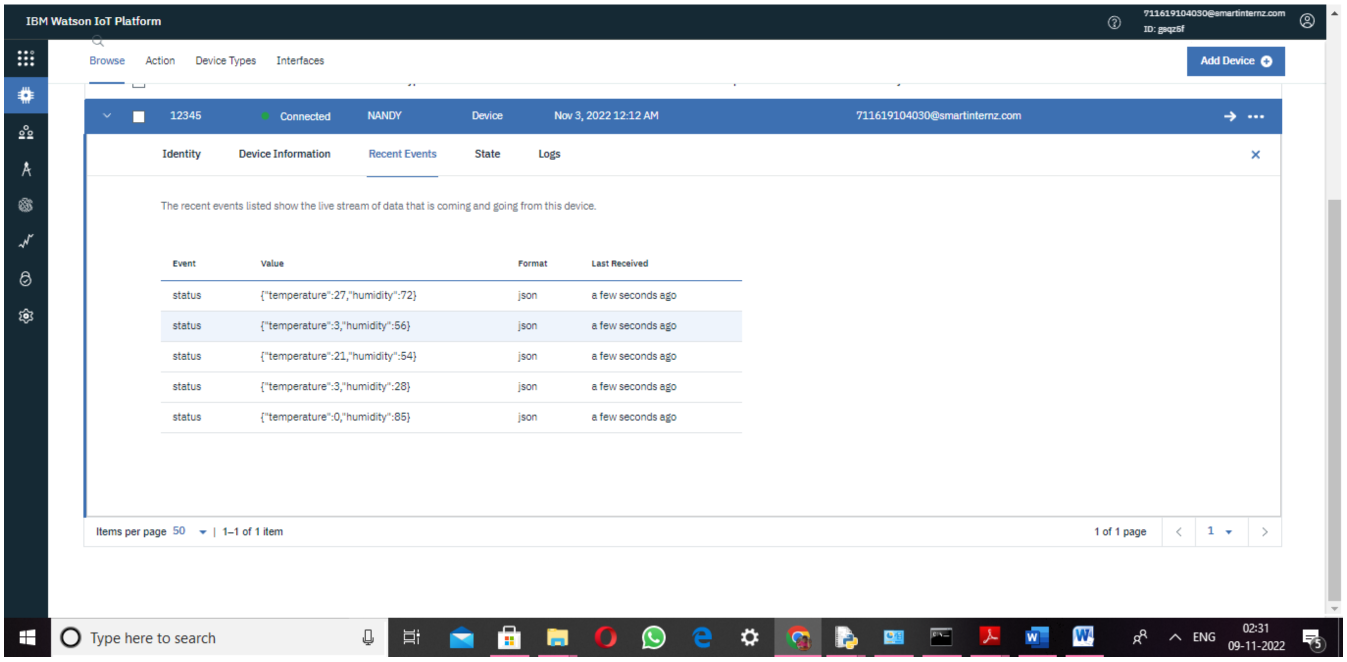
This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By	Device Class
12345	Connected	NANDY	Device	Nov 3, 2022 12:12 AM		711619104030@smartinternz.com	

Device ID	12345
Device Type	NANDY
Date Added	Nov 3, 2022 12:12 AM
Added By	711619104030@smartinternz.com
Connection Status	Connected Connection Time: Nov 9, 2022 2:40 AM Client Address: 106.222.125.219 SecureToken

Items per page 50 | 1–1 of 1 item

-3' 9 gsqz5f.internetofthingaibmcloud.com/dashboard/devices/browse

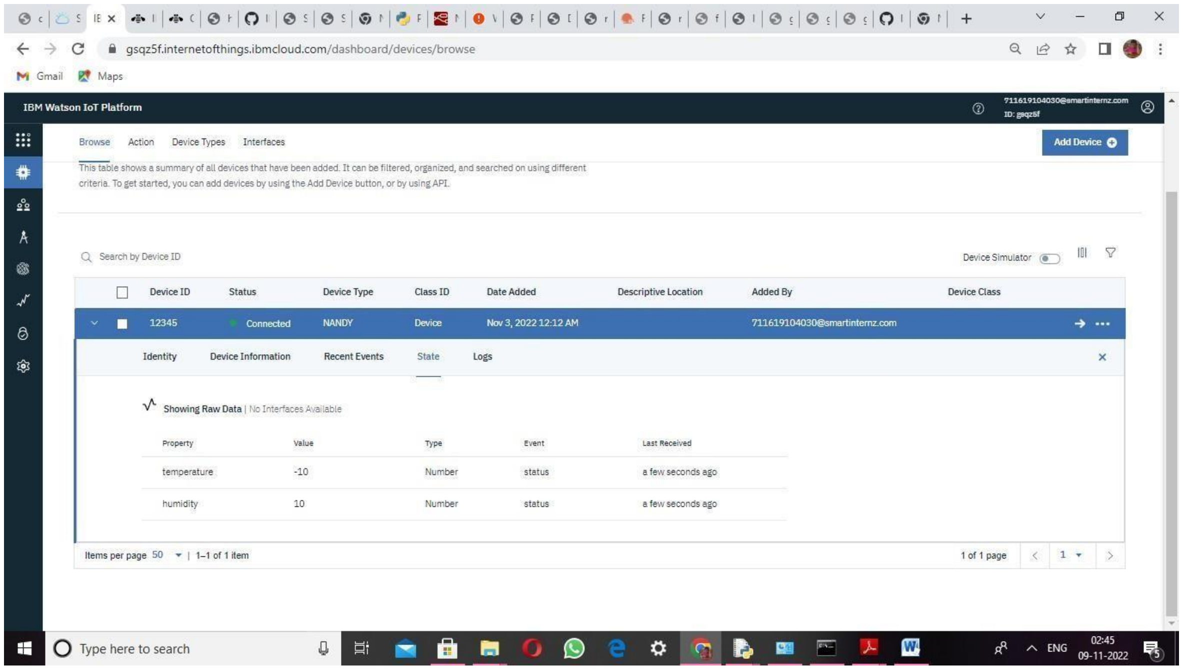


12345 Connected NANDY Device Nov 3, 2022 12:12 AM 711619104030@smartinternz.com

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
status	{"temperature":27,"humidity":72}	json	a few seconds ago
status	{"temperature":3,"humidity":56}	json	a few seconds ago
status	{"temperature":21,"humidity":54}	json	a few seconds ago
status	{"temperature":3,"humidity":28}	json	a few seconds ago
status	{"temperature":0,"humidity":85}	json	a few seconds ago

Items per page 50 | 1–1 of 1 item 1 of 1 page 1



gsqz5f.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

711619104030@smartinternz.com
ID: gsqz5f

Browse | Action | Device Types | Interfaces

Add Device

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By	Device Class
12345	Connected	NANDY	Device	Nov 3, 2022 12:12 AM		711619104030@smartinternz.com	

Identity | Device Information | Recent Events | State | Logs

Showing Raw Data | No Interfaces Available

Property	Value	Type	Event	Last Received
temperature	-10	Number	status	a few seconds ago
humidity	10	Number	status	a few seconds ago

Items per page 50 | 1–1 of 1 item

1 of 1 page

Type here to search

ENG 02:45 09-11-2022