```
1 import sys
 2 import json
 3 import paho.mqtt.client
 4
 5 # Subscriber
 6 APPLICATION ID = "centraltcc"
 7 | TOPIC = "centraltcc/devices/sinknode/up"
8 HOSTNAME = "brazil.thethings.network"
9 | PORT = 1883
10 | TIMEOUT = 60
11 client = paho.mqtt.client.Client(client id='ttn client', clean session=False)
13 # Publisher
14 WEBSOCKET HOST = "broker.hivemq.com"
15 WEBSOCKET PORT = 8000
16 WEBSOCKET TOPIC = "vagas/cpd/"
17 websocket client = paho.mqtt.client.Client(client id='websocket client',
   transport="websockets")
18
19 def on connect(client, userdata, flags, rc):
20
     client.subscribe(topic=TOPIC, gos=2)
21
22 def send data to app(data="hello world"):
23
      websocket client.publish(WEBSOCKET TOPIC, payload=data)
24
25 def on message(client, userdata, message):
26
    # Obtém dados da mensagem
27
       PAYLOAD = message.payload
28
29
    # Decodifica mensagem e envia para a aplicação
30
       data = json.loads(PAYLOAD.decode("utf-8"))["payload raw"]
31
32
       send data to app(data)
33
34 if name == ' main ':
35
    # Cria e configura cliente que obtém dados da TTN
36
     client.username pw set(APPLICATION ID, ACCESS KEY)
37
     client.on connect = on connect
38
     client.on_message = on_message
39
     client.connect(HOSTNAME, PORT, TIMEOUT)
40
41
     # Cria e configura cliente mqtt para enviar dados ao front end
42
     websocket client.connect(WEBSOCKET HOST, WEBSOCKET PORT, TIMEOUT)
43
44
     # Inicia clientes
45
    websocket client.loop start()
46
     client.loop start()
47
48
    # Aguarda mensagens
49
    while True:
50
       pass
51
52
     # Encerra clientes
53
     client.loop stop()
     client.disconnect()
54
55
    websocket client.loop stop()
56
    websocket client.disconnect()
57
     sys.exit(0)
58
```