

# Stress Test

## Experiment Stress\_Test #359057

User **chekir**

Submitted **2023-03-06 18:42:29**











Scheduled **2023-03-11 16:38:29**

Duration **2 hours**

Nodes **10**

State **Waiting**

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Nodes	UID	Firmware
m3-100.grenoble.iot-lab.info	b080	tutorial_m3.elf 
m3-101.grenoble.iot-lab.info	9181	tutorial_m3.elf 
m3-102.grenoble.iot-lab.info	a881	tutorial_m3.elf 
m3-103.grenoble.iot-lab.info	9881	tutorial_m3.elf 
m3-104.grenoble.iot-lab.info	a775	tutorial_m3.elf 
m3-105.grenoble.iot-lab.info	b576	tutorial_m3.elf 
m3-106.grenoble.iot-lab.info	9382	tutorial_m3.elf 
m3-107.grenoble.iot-lab.info	a072	tutorial_m3.elf 
m3-108.grenoble.iot-lab.info	8477	tutorial_m3.elf 
m3-109.grenoble.iot-lab.info	1062	tutorial_m3.elf 

<https://s3-us-west-2.amazonaws.com/secure.notion-static.com/f0206494-2824-4e76-953f-a94dfc5c3d53/stress1.pcap>

<https://s3-us-west-2.amazonaws.com/secure.notion-static.com/7e1e0975-b0a3-4108-bedc-015672987a34/stress2.pcap>

## Tests:

- 100 tx from one device then from 2 then from 4
- 100 tx from 4 devices for the pressure sensor then for the light sensor from 5 devices for mix of pressure and light sensors

```
#!/bin/bash

n=1

while [ $n -le 100 ]
do
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure
    n=$(( $n + 1 ))
done

wait 2

n=1

while [ $n -le 100 ]
do
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::b576]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::9382]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::a881]:5683/sensors/pressure &
    n=$(( $n + 1 ))
done

wait 2

n=1

while [ $n -le 100 ]
do
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::b576]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::9382]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::a881]:5683/sensors/pressure &
    n=$(( $n + 1 ))
done
```

In the 3rd we start seeing stuttering in the output lets see the pcap file

in pcap file we can see some variability in terms of the RTO between different transmissions especially in the third loop

```
#!/bin/bash
```

```

while [ $n -le 100 ]
do
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::b576]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::9382]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::a881]:5683/sensors/pressure
    n=$(( $n +1 ))
done

wait 2

while [ $n -le 100 ]
do
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::b576]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::9382]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::a881]:5683/sensors/light
    n=$(( $n +1 ))
done

wait 2

while [ $n -le 100 ]
do
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::b576]:5683/sensors/pressure &
    aiocoap-client coap://[2001:660:5307:3100::9382]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::9881]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::a881]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::a775]:5683/sensors/light &
    aiocoap-client coap://[2001:660:5307:3100::1062]:5683/sensors/pressure

    n=$(( $n +1 ))
done

```