

M15 UF2 IoT

Sentilo (versió 2)



Curs: 2019-20

CFGs: DAM2

Alumne : Arnau Subirós Puigarnau

Data : 10-03-2020

Nota : versió 2- A partir de la pàgina 17

Nom i Cognoms

Arnau Subirós Puigarnau

Data

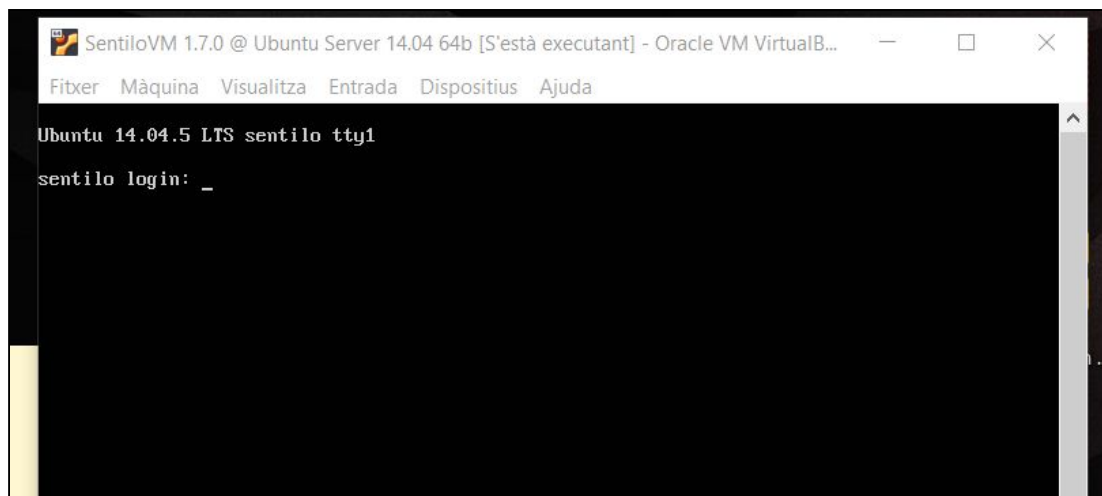
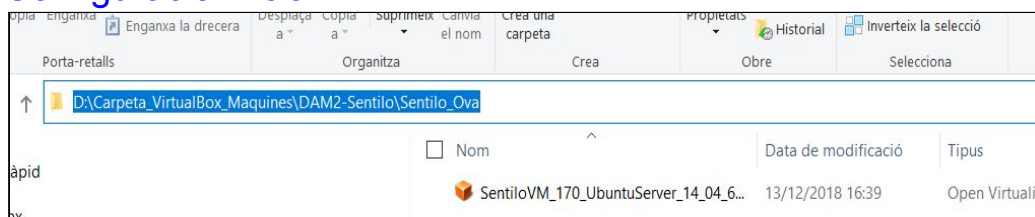
10-03-2020

Configuració SENTILO

Font consultada :

- ☐ https://wiki.binefa.cat/index.php?title=%C3%8Dndex_general#Sentilo
- ☐ <https://www.youtube.com/watch?v=DoCdtOZTZ-A&feature=youtu.be>
- ☐ <https://www.youtube.com/watch?v=DUfvC16ipjo&feature=youtu.be>
- ☐ <https://sentilo.readthedocs.io/en/latest/setup.html>
- ☐ https://github.com/jordibinefa/arduino-IDE-codes/tree/master/esp8266_sentilo_01

Configuració inicial



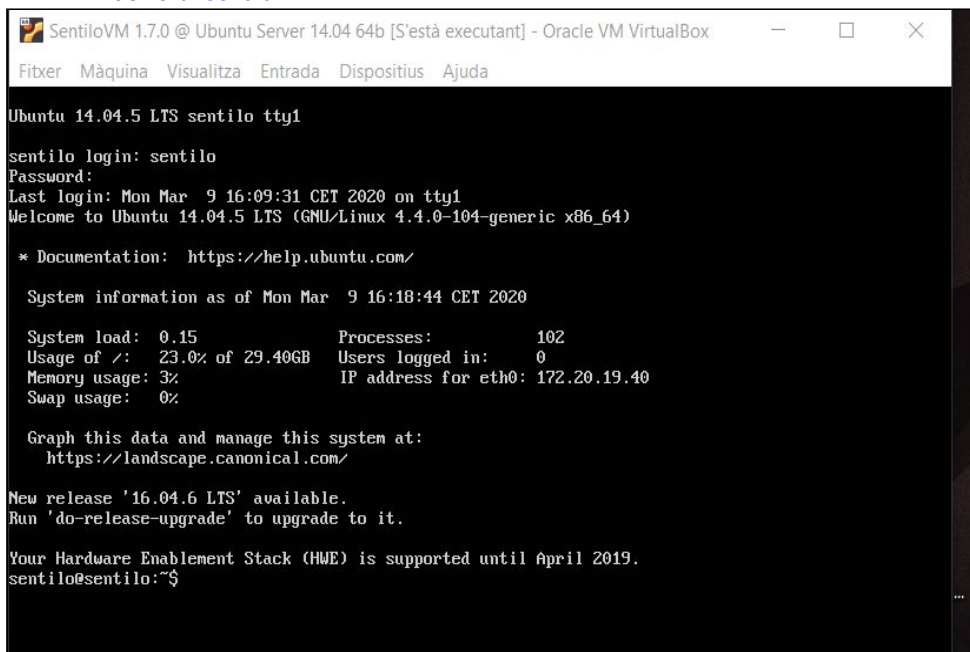
Nom i Cognoms

Arnau Subirós Puigarnau

Data

10-03-2020

- User : **sentilo**
- Pasword: **sentilo**



```
SentiloVM 1.7.0 @ Ubuntu Server 14.04 64b [S'està executant] - Oracle VM VirtualBox
Fitxer Màquina Visualitza Entrada Dispositius Ajuda

Ubuntu 14.04.5 LTS sentilo tty1

sentilo login: sentilo
Password:
Last login: Mon Mar  9 16:09:31 CET 2020 on tty1
Welcome to Ubuntu 14.04.5 LTS (GNU/Linux 4.4.0-104-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

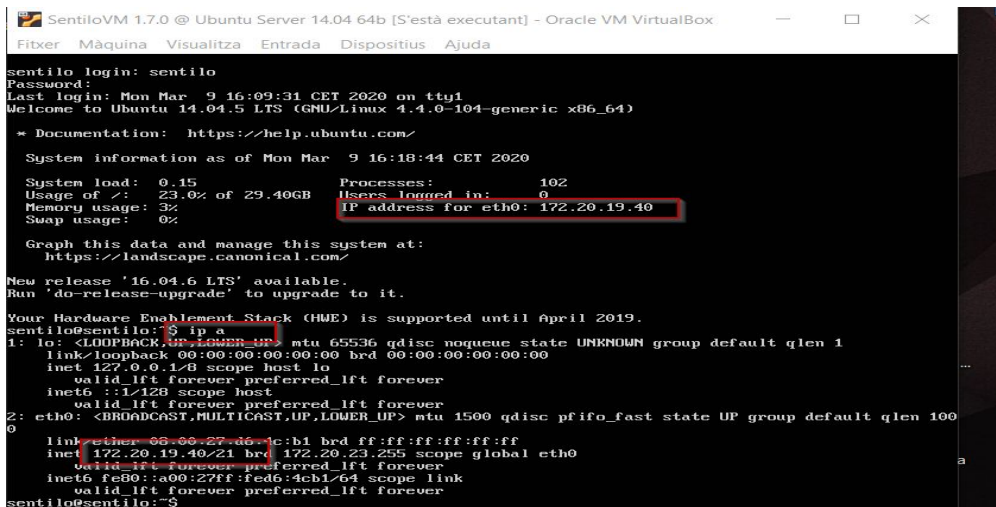
System information as of Mon Mar  9 16:18:44 CET 2020

System load:  0.15           Processes:            102
Usage of /:   23.0% of 29.40GB Users logged in:      0
Memory usage: 3%           IP address for eth0: 172.20.19.40
Swap usage:   0%

Graph this data and manage this system at:
https://landscape.canonical.com/

New release '16.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
sentilo@sentilo:~$
```

Visualitzem la IP

```
SentiloVM 1.7.0 @ Ubuntu Server 14.04 64b [S'està executant] - Oracle VM VirtualBox
Fitxer Màquina Visualitza Entrada Dispositius Ajuda

sentilo login: sentilo
Password:
Last login: Mon Mar  9 16:09:31 CET 2020 on tty1
Welcome to Ubuntu 14.04.5 LTS (GNU/Linux 4.4.0-104-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

System information as of Mon Mar  9 16:18:44 CET 2020

System load:  0.15           Processes:            102
Usage of /:   23.0% of 29.40GB Users logged in:      0
Memory usage: 3%           IP address for eth0: 172.20.19.40
Swap usage:   0%

Graph this data and manage this system at:
https://landscape.canonical.com/

New release '16.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
sentilo@sentilo:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:00:4c:b1 brd ff:ff:ff:ff:ff:ff
    inet 172.20.19.40/21 brd 172.20.23.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:c27f:fed6:4cb1/64 scope link
        valid_lft forever preferred_lft forever
sentilo@sentilo:~$
```

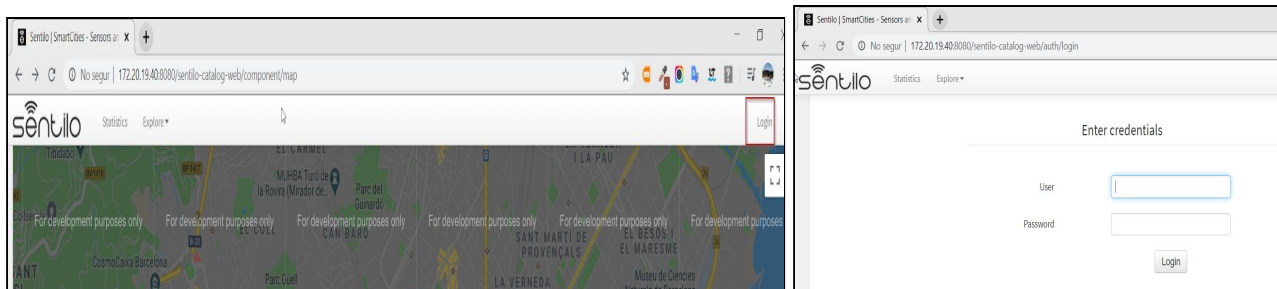
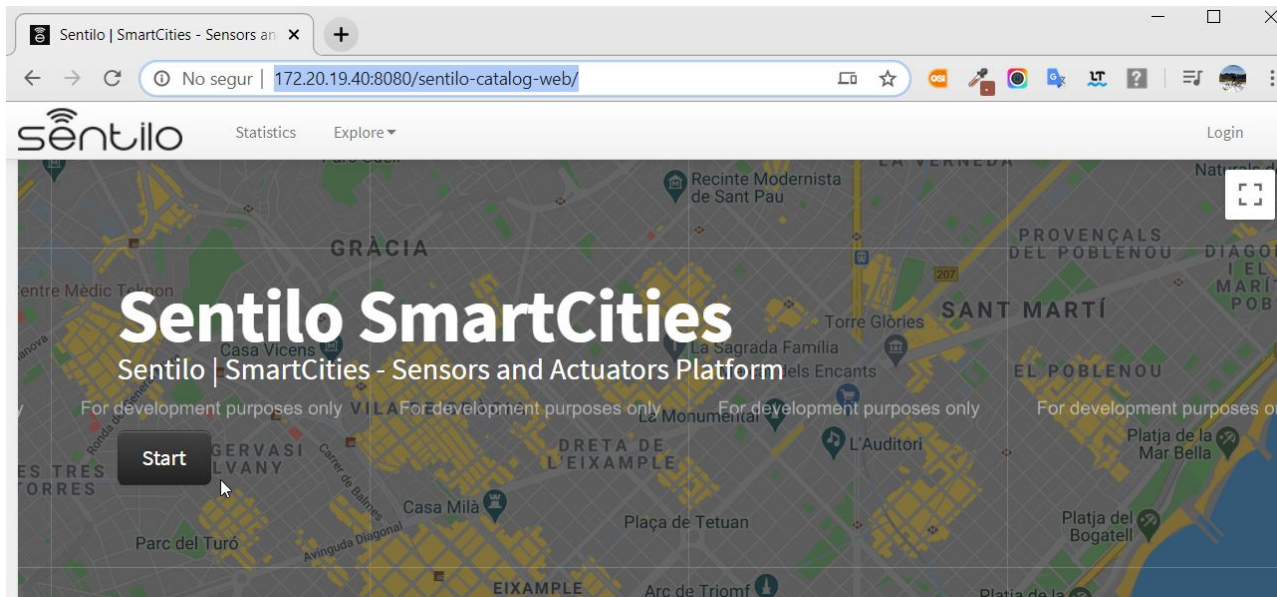
Nom i Cognoms

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Data

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- Visualitzo la IP de la interfície eth0 : 172.20.19.40
- Obro el navegador Chrome i escric : <http://172.20.19.40:8080/sentilo-catalog-web/>



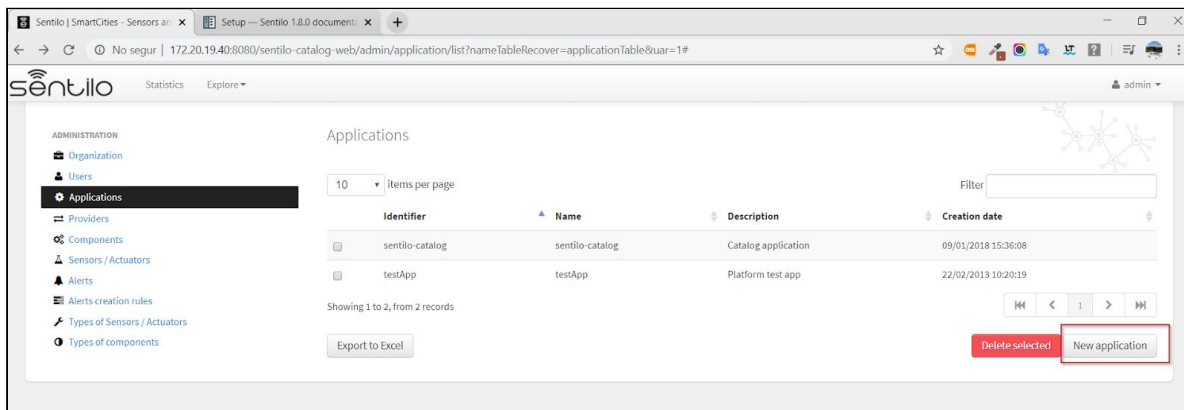
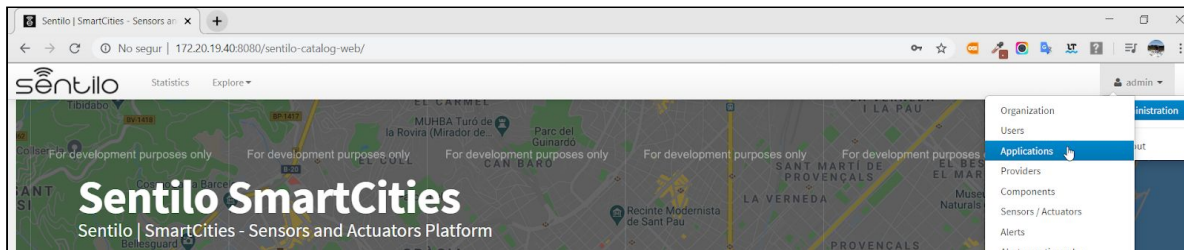
Nom i Cognoms

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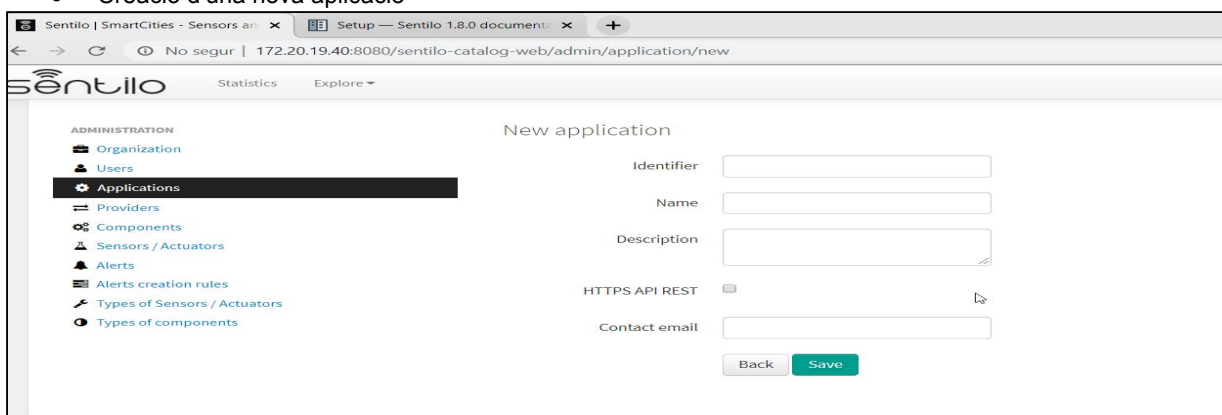
Data

10-03-2020

- Accedim a LOGIN
 - user: **admin**
 - passwd :**1234**



- Creació d'una nova aplicació

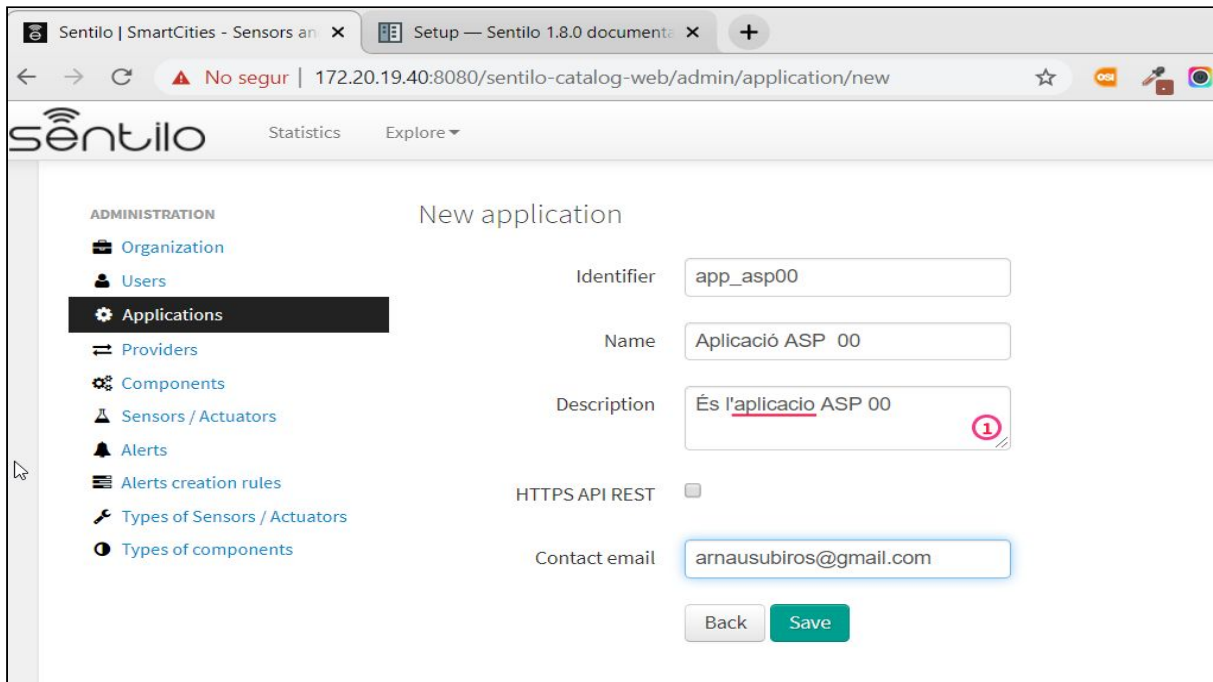


Nom i Cognoms

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Data

10-03-2020



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 documenta x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/application/new

sentilo Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications**
- Providers
- Components
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

New application

Identifier: app_asp00

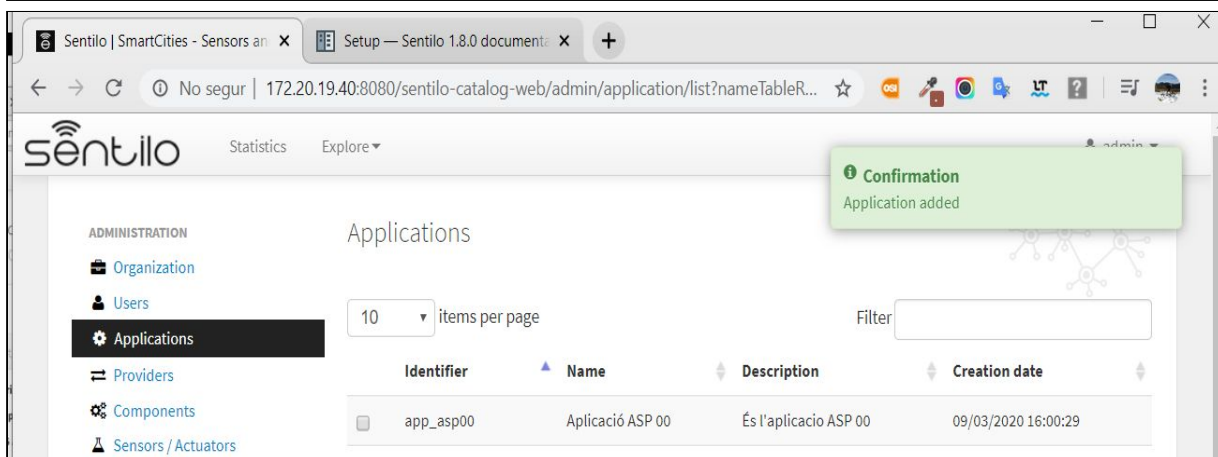
Name: Aplicació ASP 00

Description: És l'aplicacio ASP 00

HTTPS API REST: ☐

Contact email: arnausubiros@gmail.com

Back Save



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 documenta x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/application/list?nameTableR...

sentilo Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications**
- Providers
- Components
- Sensors / Actuators

Applications

10 items per page

Filter

Identifier	Name	Description	Creation date
app_asp00	Aplicació ASP 00	És l'aplicacio ASP 00	09/03/2020 16:00:29

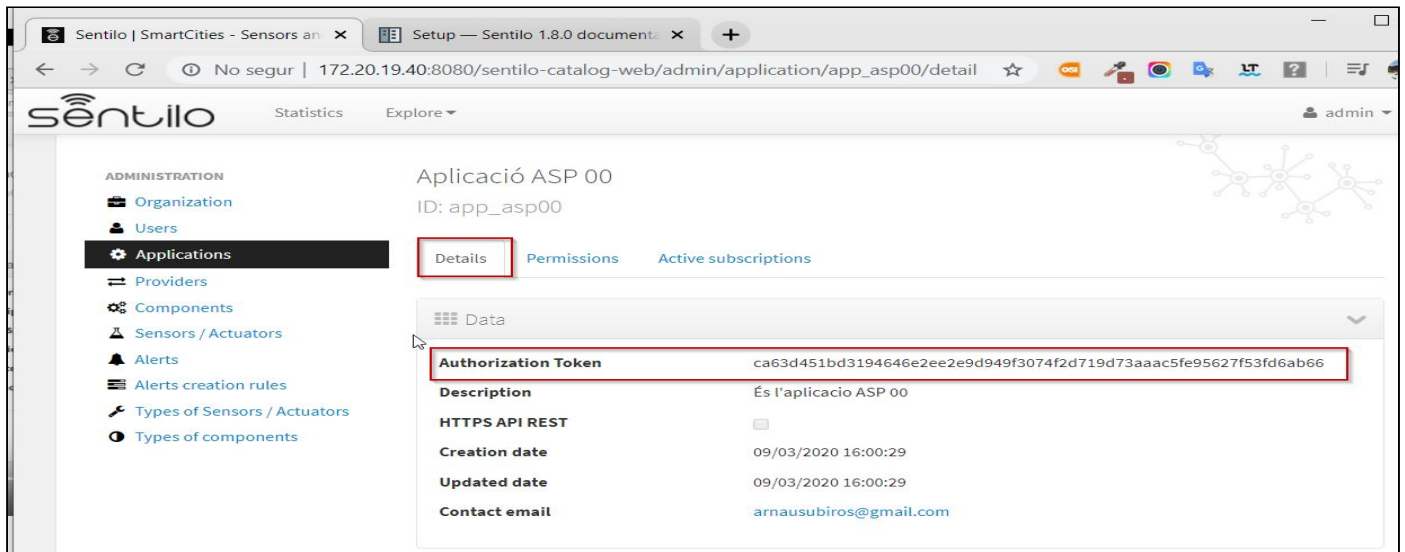
Nom i Cognoms

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Data

10-03-2020

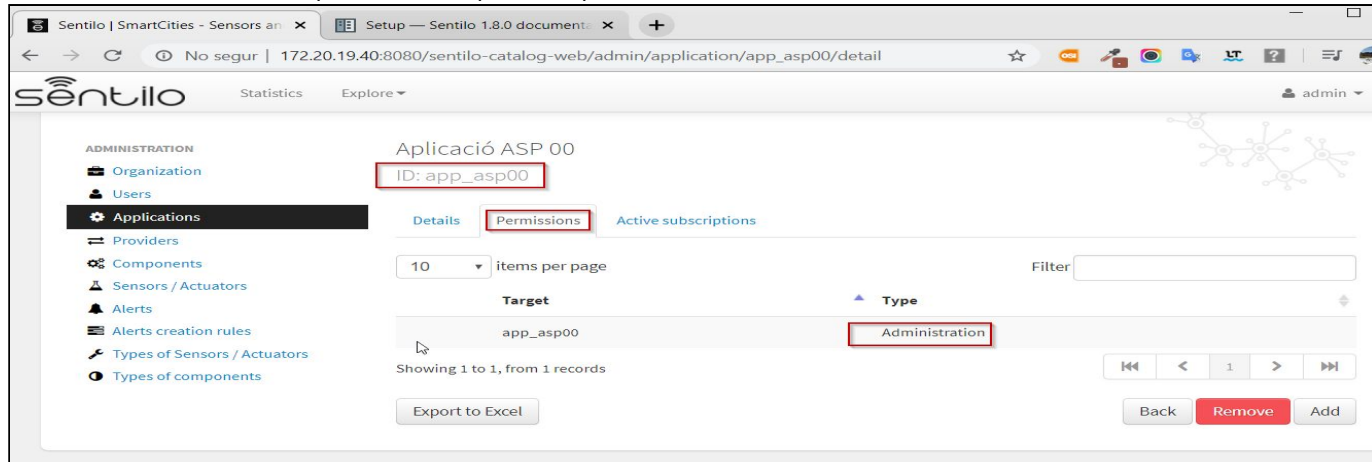
- Seleccionem “Details” l’aplicació (ID: **app_asp00**) creada i visualitzem els detalls



The screenshot shows the 'Sentilo' web application interface. The left sidebar contains a menu with 'ADMINISTRATION' at the top, followed by 'Organization', 'Users', 'Applications' (highlighted), 'Providers', 'Components', 'Sensors / Actuators', 'Alerts', 'Alerts creation rules', 'Types of Sensors / Actuators', and 'Types of components'. The main content area is titled 'Aplicació ASP 00' with 'ID: app_asp00'. Below the title are three tabs: 'Details' (highlighted), 'Permissions', and 'Active subscriptions'. The 'Details' tab shows a table with the following data:

Data	
Authorization Token	ca63d451bd3194646e2ee2e9d949f3074f2d719d73aac5fe95627f53fd6ab66
Description	És l'aplicació ASP 00
HTTPS API REST	<input type="checkbox"/>
Creation date	09/03/2020 16:00:29
Updated date	09/03/2020 16:00:29
Contact email	arnausubiros@gmail.com

- Seleccionem “Permissions” que ens indica que tenim permisos d'Administrador



The screenshot shows the 'Sentilo' web application interface with the 'Permissions' tab selected. The left sidebar is the same as in the previous screenshot. The main content area is titled 'Aplicació ASP 00' with 'ID: app_asp00'. Below the title are three tabs: 'Details', 'Permissions' (highlighted), and 'Active subscriptions'. The 'Permissions' tab shows a table with the following data:

Target	Type
app_asp00	Administration

Below the table, it says 'Showing 1 to 1, from 1 records'. There are buttons for 'Export to Excel', 'Back', 'Remove', and 'Add'.

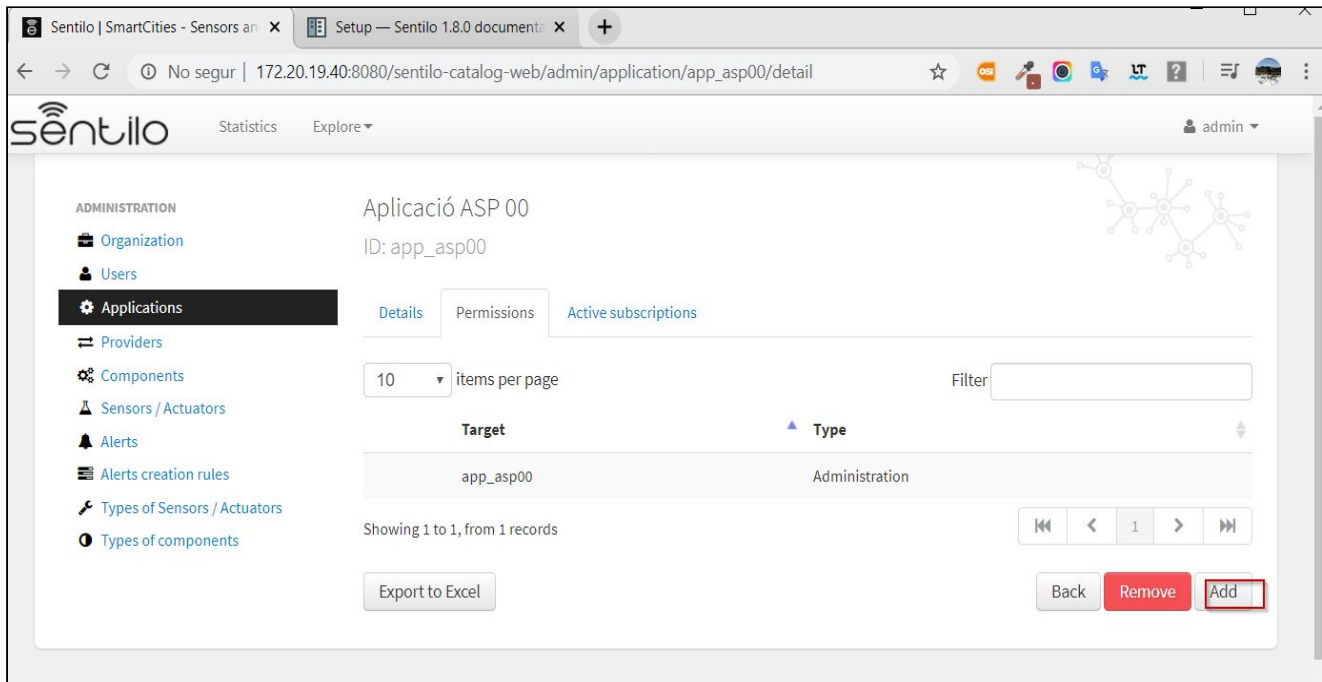
- Seleccionem “Permissions” que ens indica que tenim permisos d'Administrador , haurem d'afegir permisos de lectura i escriptura, però utilitzarem un nou proveïdor

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10-03-2020



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 document: x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/application/app_asp00/detail

sentilo Statistics Explore admin

ADMINISTRATION

- Organization
- Users
- Applications**
- Providers
- Components
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Aplicació ASP 00
ID: app_asp00

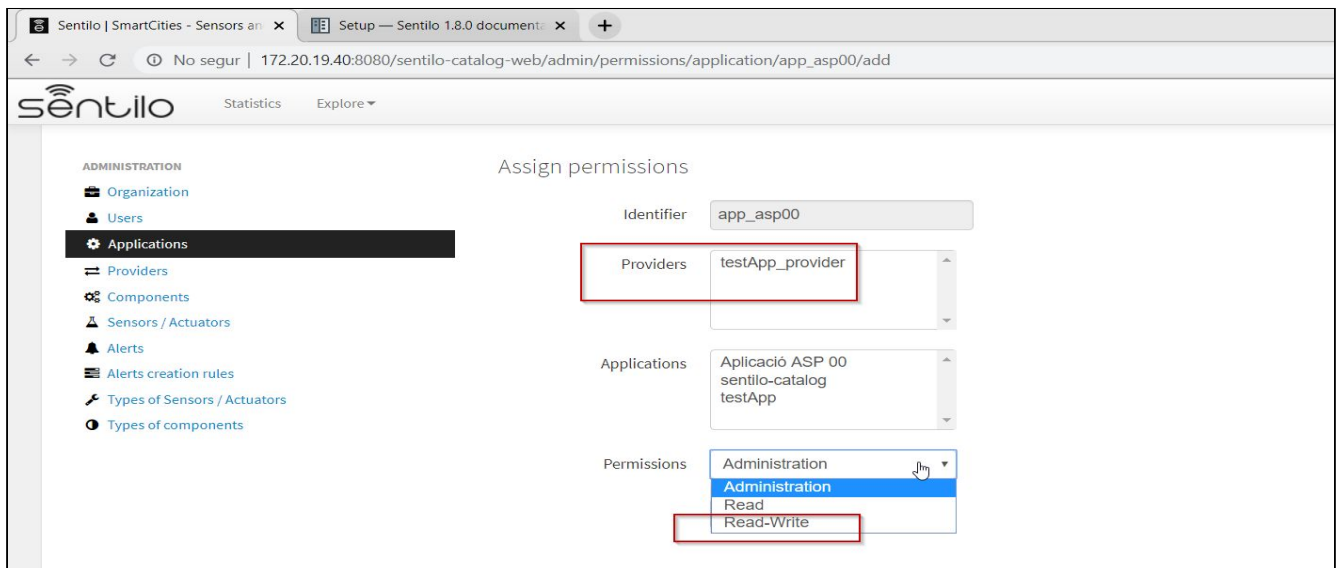
Details Permissions Active subscriptions

10 items per page Filter

Target	Type
app_asp00	Administration

Showing 1 to 1, from 1 records

Export to Excel Back Remove Add



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 document: x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/permissions/application/app_asp00/add

sentilo Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications**
- Providers
- Components
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Assign permissions

Identifier app_asp00

Providers testApp_provider

Applications Aplicació ASP 00
sentilo-catalog
testApp

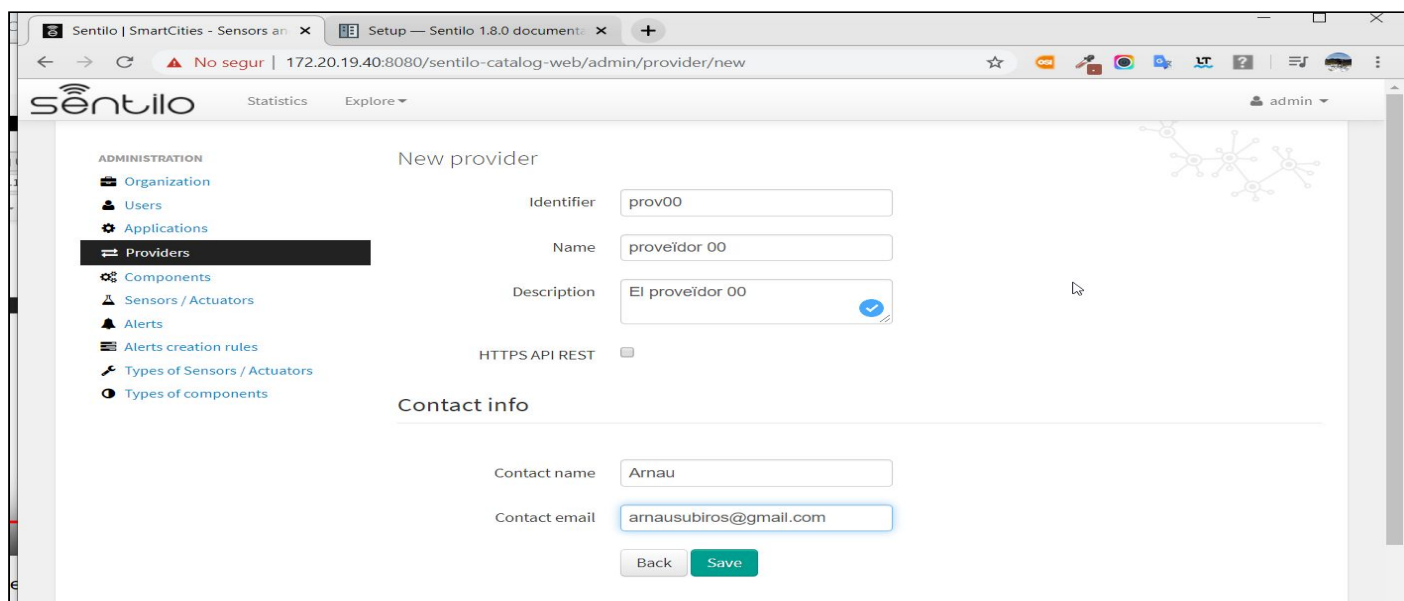
Permissions Administration
Administration
Read
Read-Write

Nom i Cognoms

Arnau Subirós Puigarnau

Data

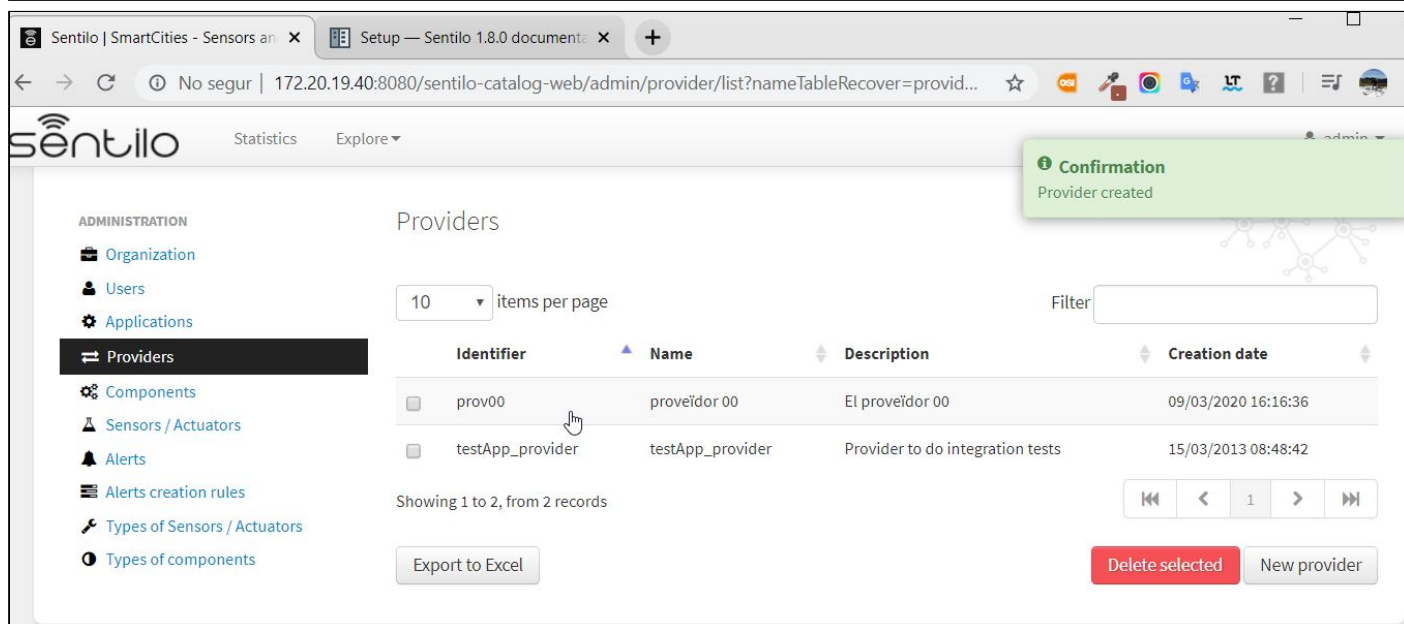
10-03-2020



The screenshot shows the 'New provider' form in the Sentilo web application. The left sidebar contains a menu with options: Organization, Users, Applications, Providers (selected), Components, Sensors / Actuators, Alerts, Alerts creation rules, Types of Sensors / Actuators, and Types of components. The main form has the following fields:

- Identifier: prov00
- Name: proveïdor 00
- Description: El proveïdor 00
- HTTPS API REST: ☐
- Contact name: Arnau
- Contact email: arnausubiros@gmail.com

Buttons at the bottom: Back, Save.



The screenshot shows the 'Providers' list in the Sentilo web application. A green confirmation message 'Confirmation Provider created' is displayed at the top right. The table lists the following providers:

Identifier	Name	Description	Creation date
prov00	proveïdor 00	El proveïdor 00	09/03/2020 16:16:36
testApp_provider	testApp_provider	Provider to do integration tests	15/03/2013 08:48:42

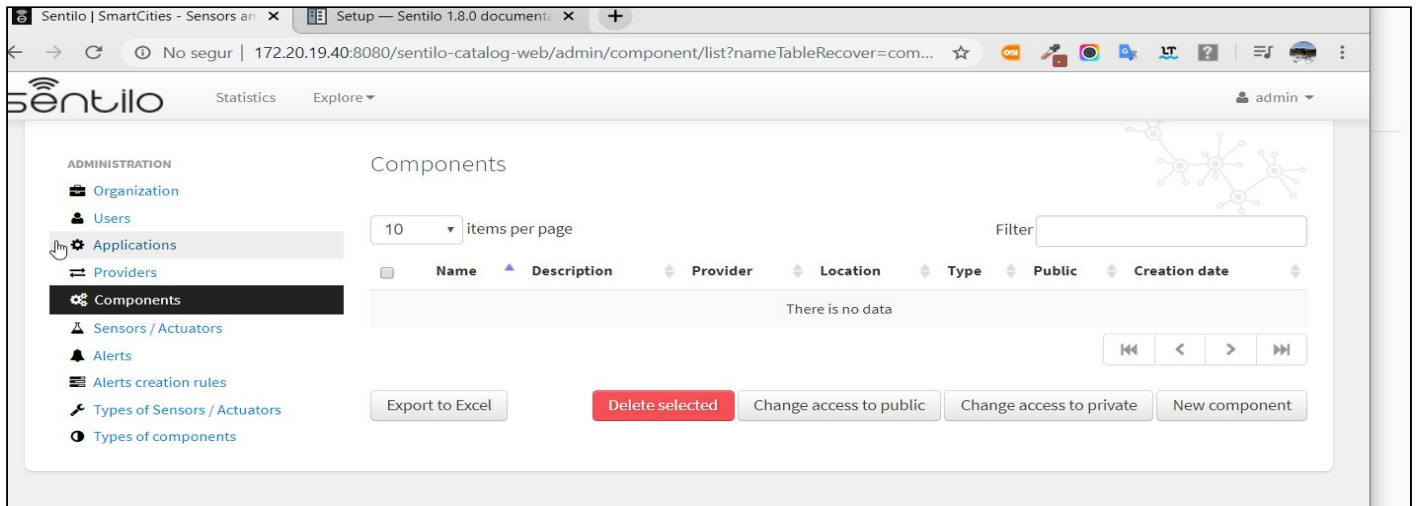
Additional details: 10 items per page, Filter, Showing 1 to 2, from 2 records, Export to Excel, Delete selected, New provider.

Nom i Cognoms

Arnau Subirós Puigarnau

Data

10-03-2020



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 document x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/component/list?nameTableRecover=com...

Sentilo Statistics Explore admin

ADMINISTRATION

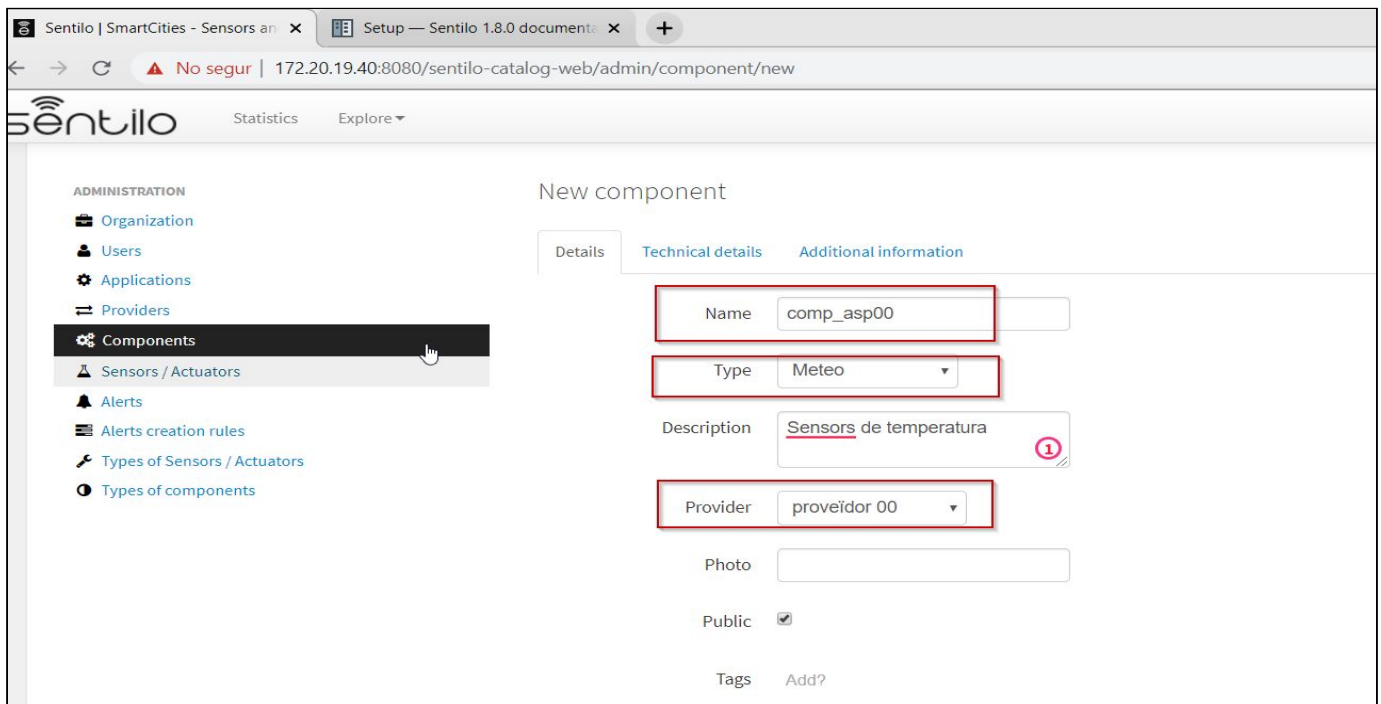
- Organization
- Users
- Applications
- Providers
- Components**
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Components

10 items per page Filter

Name	Description	Provider	Location	Type	Public	Creation date
There is no data						

Export to Excel Delete selected Change access to public Change access to private New component



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 document x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/component/new

Sentilo Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications
- Providers
- Components**
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

New component

Details Technical details Additional information

Name comp_asp00

Type Meteo

Description Sensors de temperatura

Provider proveïdor 00

Photo

Public ☒

Tags Add?

Nom i Cognoms

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Data

10-03-2020

Static Mobile

Address

Latitude

Longitude

Add location

Locations list

Delete selected location Delete all locations

Google

This page can't load Google Maps correctly.

Do you own this website? [OK](#)

Back **Save**

Sentilo | SmartCities - Sensors and Actuators

Setup — Sentilo 1.8.0 document

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/component/list?nameTableRecover=componentTable&fromBack=true

Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications
- Providers
- Components**
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Components

10 items per page

Filter

Name	Description	Provider	Location	Type	Public	Creation date
comp_asp00	Sensors de temperatura	prov00	Mobile	meteo	true	09/03/2020 16:21:30

Showing 1 to 1, from 1 records

Export to Excel

Delete selected Change access to public Change access to private New component

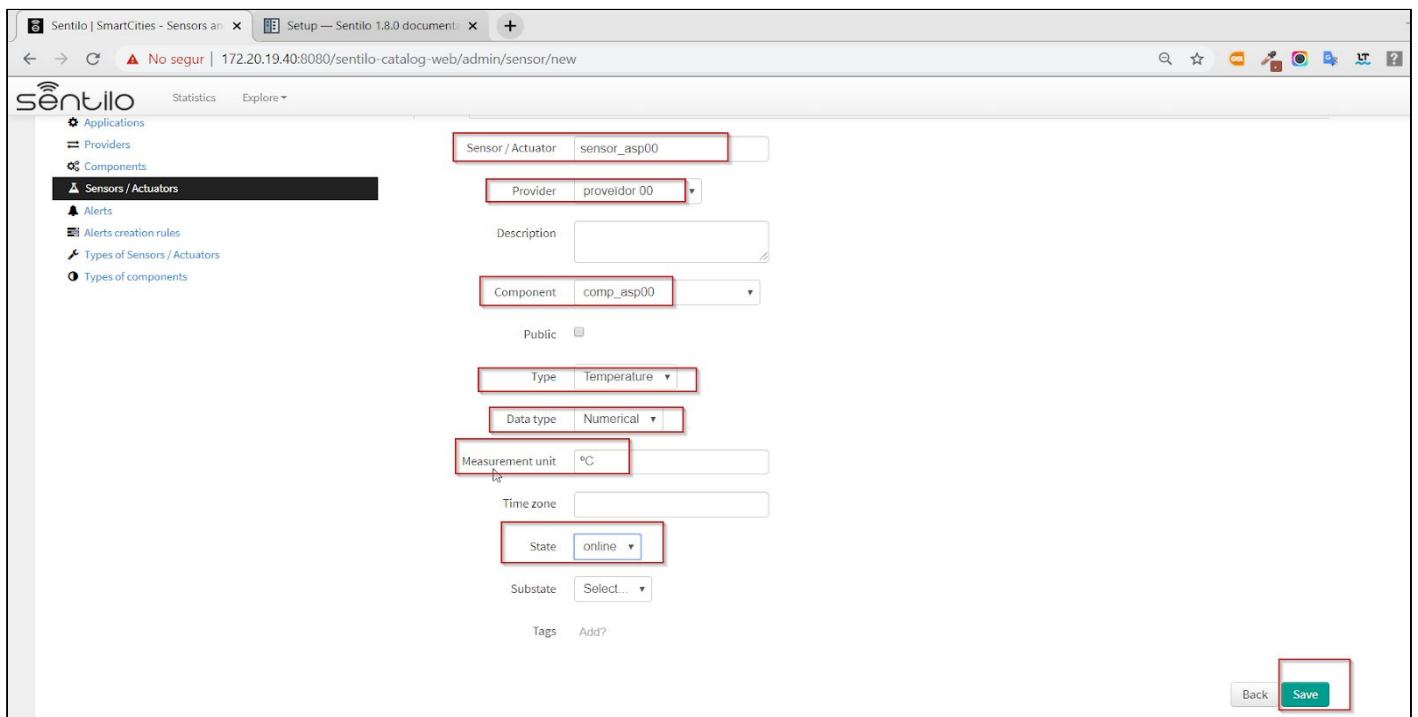
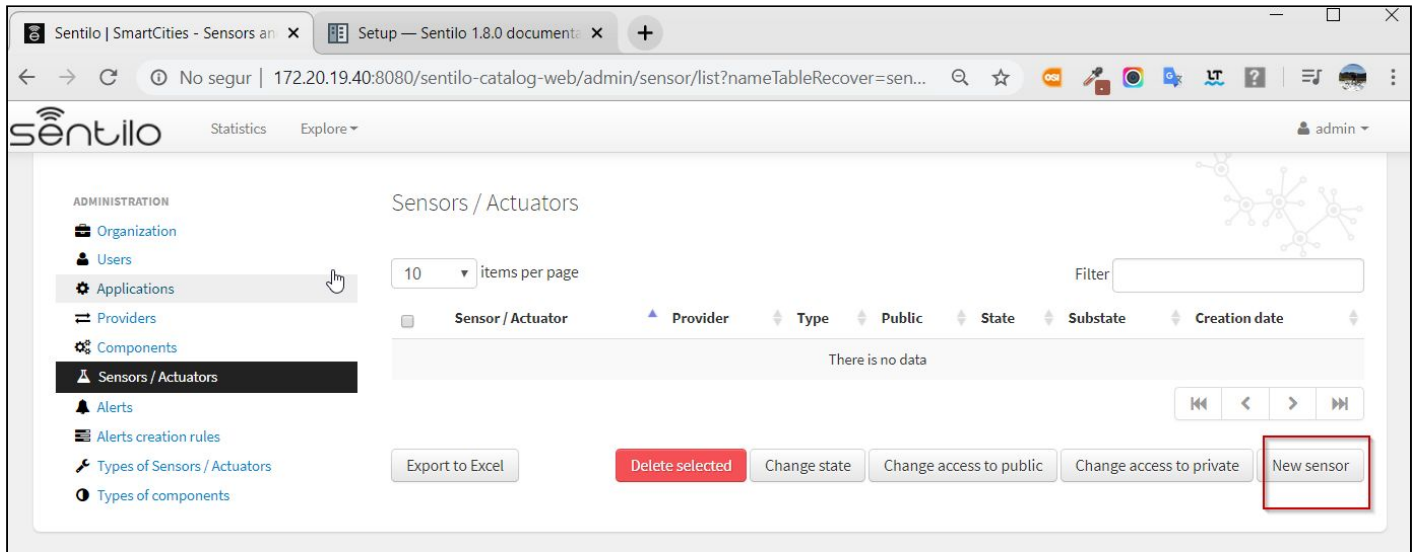
Confirmation
Component added

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Data

10-03-2020

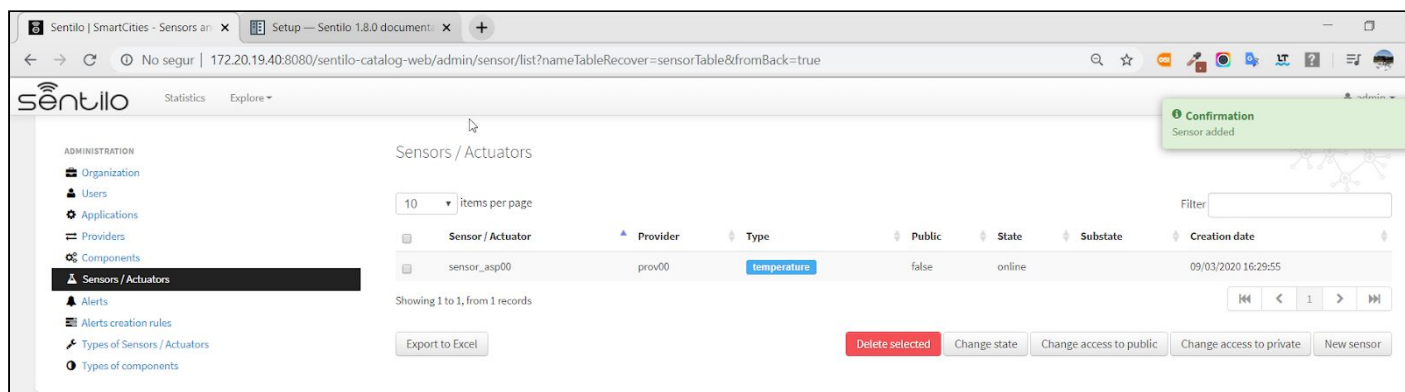


Nom i Cognoms

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Data

10-03-2020



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 document: x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/sensor/list?nameTableRecover=sensorTable&fromBack=true

Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications
- Providers
- Components
- Sensors / Actuators**
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Sensors / Actuators

10 items per page

Sensor / Actuator	Provider	Type	Public	State	Substate	Creation date
sensor_asp00	prov00	temperature	false	online		09/03/2020 16:29:55

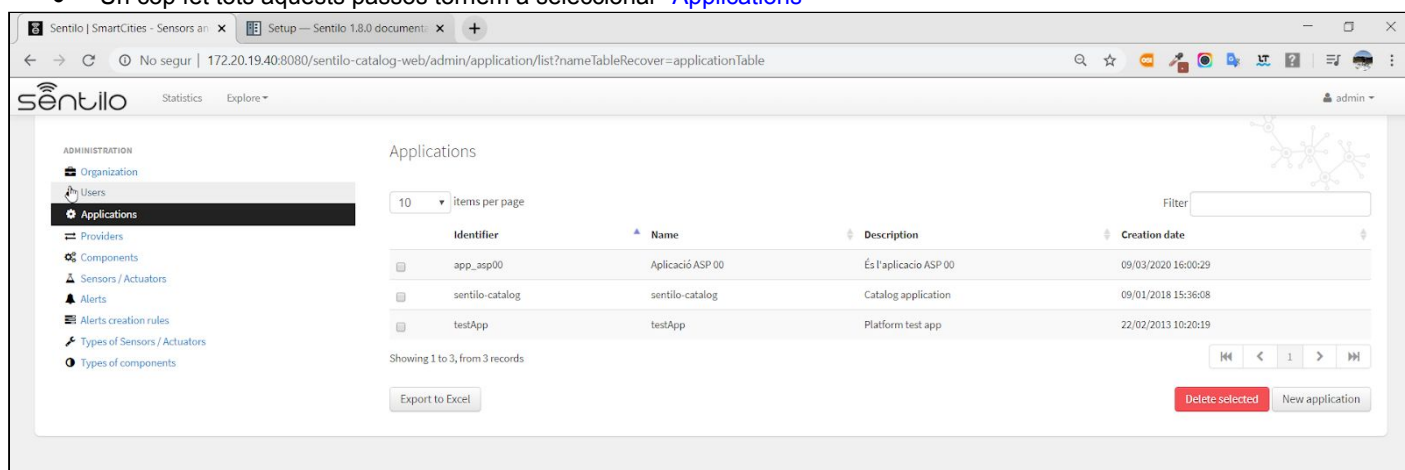
Showing 1 to 1, from 1 records

Export to Excel

Delete selected Change state Change access to public Change access to private New sensor

Confirmation
Sensor added

- Un cop fet tots aquests passos tornem a seleccionar “Applications”



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 document: x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/application/list?nameTableRecover=applicationTable

Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications**
- Providers
- Components
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Applications

10 items per page

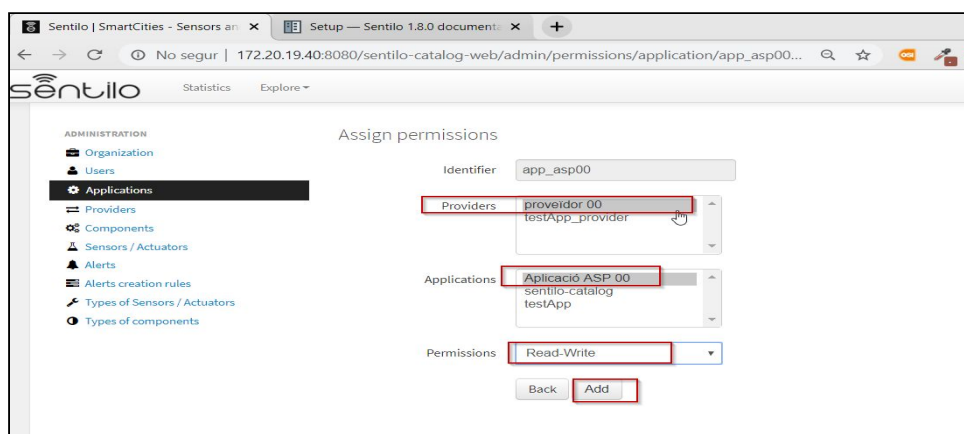
Identifier	Name	Description	Creation date
app_asp00	Aplicació ASP 00	És l'aplicació ASP 00	09/03/2020 16:00:29
sentilo-catalog	sentilo-catalog	Catalog application	09/01/2018 15:36:08
testApp	testApp	Platform test app	22/02/2013 10:20:19

Showing 1 to 3, from 3 records

Export to Excel

Delete selected New application

- Seleccionem la app **app_asp00** i modificarem els permisos



Sentilo | SmartCities - Sensors an x Setup — Sentilo 1.8.0 document: x +

No segur | 172.20.19.40:8080/sentilo-catalog-web/admin/permissions/application/app_asp00...

Statistics Explore

ADMINISTRATION

- Organization
- Users
- Applications**
- Providers
- Components
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Assign permissions

Identifier: app_asp00

Providers: proveidor 00

Applications: Aplicació ASP 00

Permissions: Read-Write

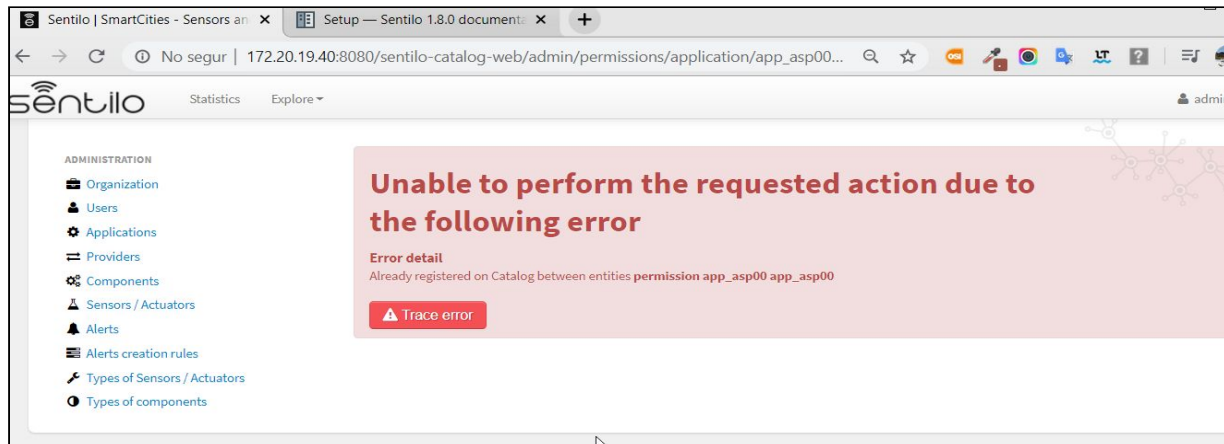
Back Add

Nom i Cognoms

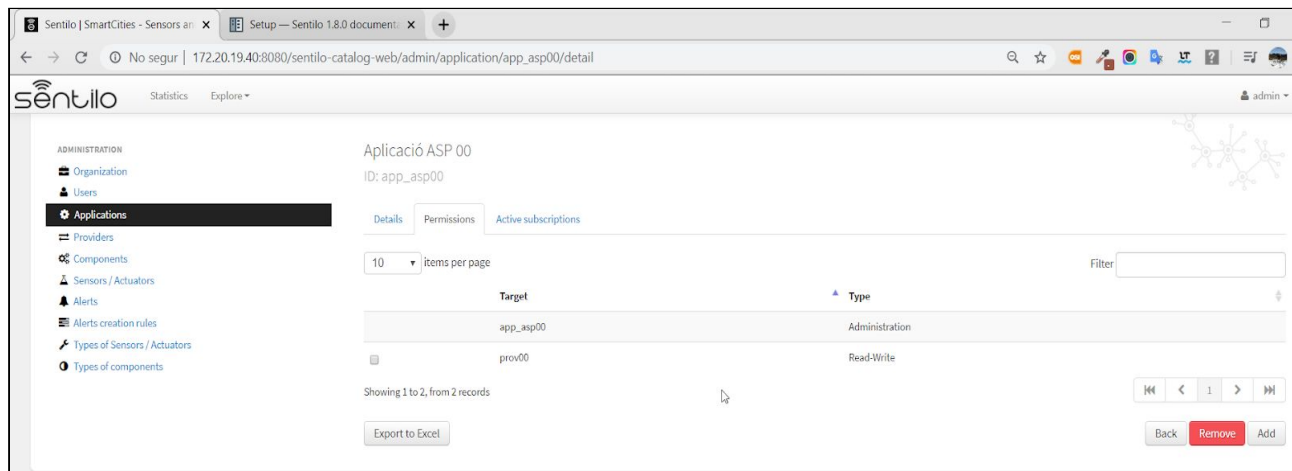
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Data

10-03-2020



- Dona error però verifiquem en permisos que s'ha afegit correctament



Nom i Cognoms

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Data

10-03-2020

- Torno a revisar i m'adono que el sensor no l'hi havia habilitat com a "públic"

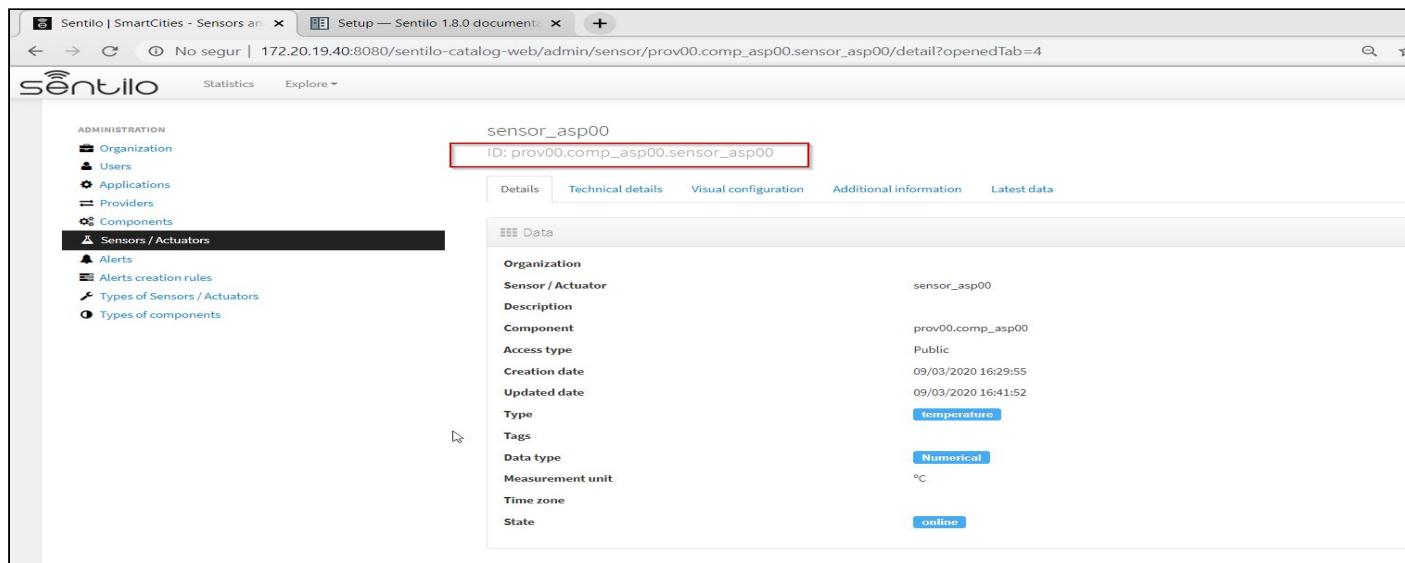
Sensor / Actuator	Provider	Type	Public	State	Substate	Creation date
sensor_asp00	prov00	temperature	true	online		09/03/2020 16:29:55

Nom i Cognoms

Arnau Subirós Puigarnau

Data

10-03-2020



The screenshot shows the Sentilo web interface. The browser address bar indicates the URL: `172.20.19.40:8080/sentilo-catalog-web/admin/sensor/prov00.comp_asp00.sensor_asp00/detail?openedTab=4`. The interface has a sidebar menu on the left with the following items: **ADMINISTRATION**, Organization, Users, Applications, Providers, Components, **Sensors / Actuators** (highlighted), Alerts, Alerts creation rules, Types of Sensors / Actuators, and Types of components. The main content area displays the details for the sensor **sensor_asp00**. The ID `prov00.comp_asp00.sensor_asp00` is highlighted with a red box. Below the ID, there are tabs for **Details**, **Technical details**, **Visual configuration**, **Additional information**, and **Latest data**. The **Details** tab is active, showing a table of sensor properties:

Data	
Organization	
Sensor / Actuator	sensor_asp00
Description	
Component	prov00.comp_asp00
Access type	Public
Creation date	09/03/2020 16:29:55
Updated date	09/03/2020 16:41:52
Type	temperature
Tags	
Data type	Numerical
Measurement unit	°C
Time zone	
State	online

Nom i Cognoms

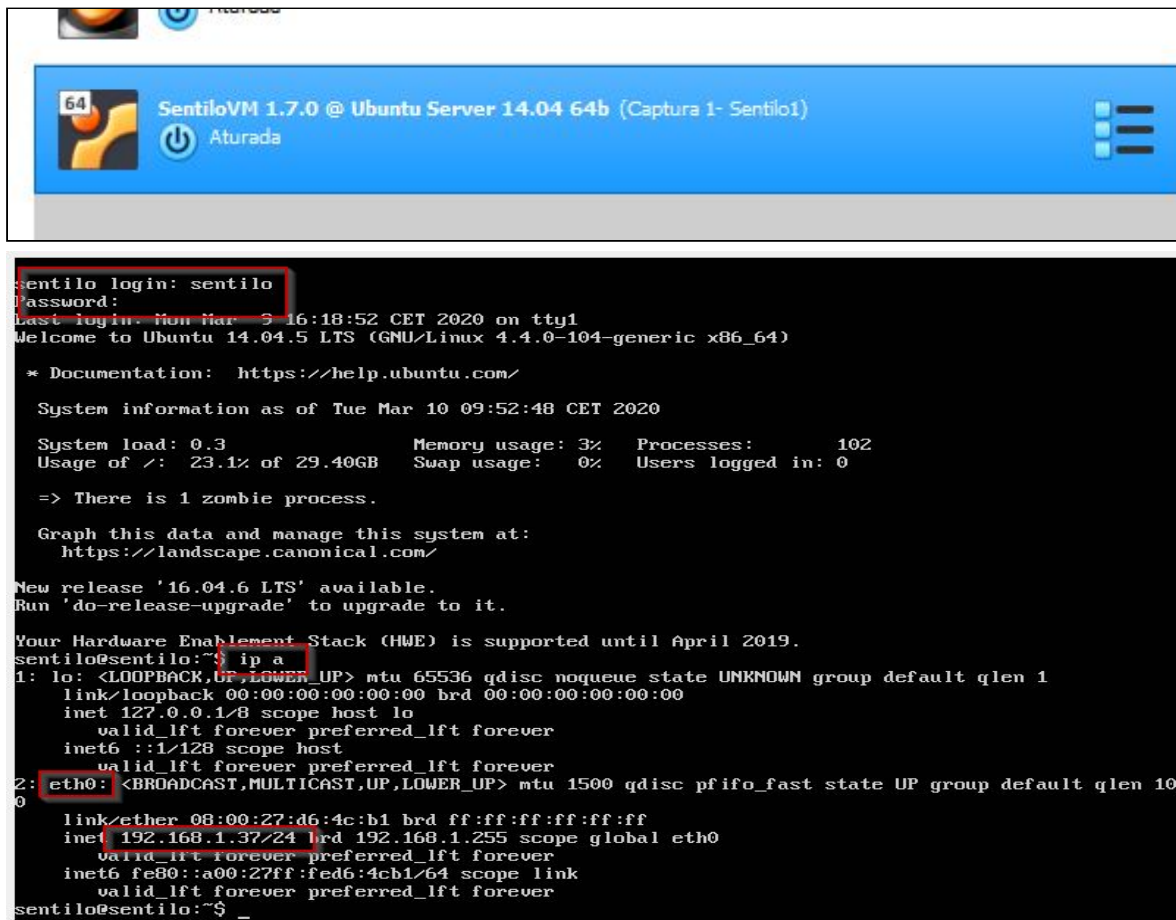
Arnau Subirós Puigarnau

Data

10-03-2020

VERSIÓ 2 - 10-3-2020

- NOTA, hem de tenir en compte que quan torni a engegar la màquina virtual, la IP serà diferent, ja que està en un altre xarxa (192.168.1.0/24)



```
sentilo login: sentilo
Password:
Last login: Mon Mar 9 16:18:52 CET 2020 on tty1
Welcome to Ubuntu 14.04.5 LTS (GNU/Linux 4.4.0-104-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

System information as of Tue Mar 10 09:52:48 CET 2020

System load: 0.3               Memory usage: 3%   Processes:   102
Usage of /:  23.1% of 29.40GB   Swap usage:  0%   Users logged in: 0

=> There is 1 zombie process.

Graph this data and manage this system at:
https://landscape.canonical.com/

New release '16.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2019.
sentilo@sentilo:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:d6:4c:b1 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.37/24 brd 192.168.1.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fed6:4cb1/64 scope link
        valid_lft forever preferred_lft forever
sentilo@sentilo:~$ _
```

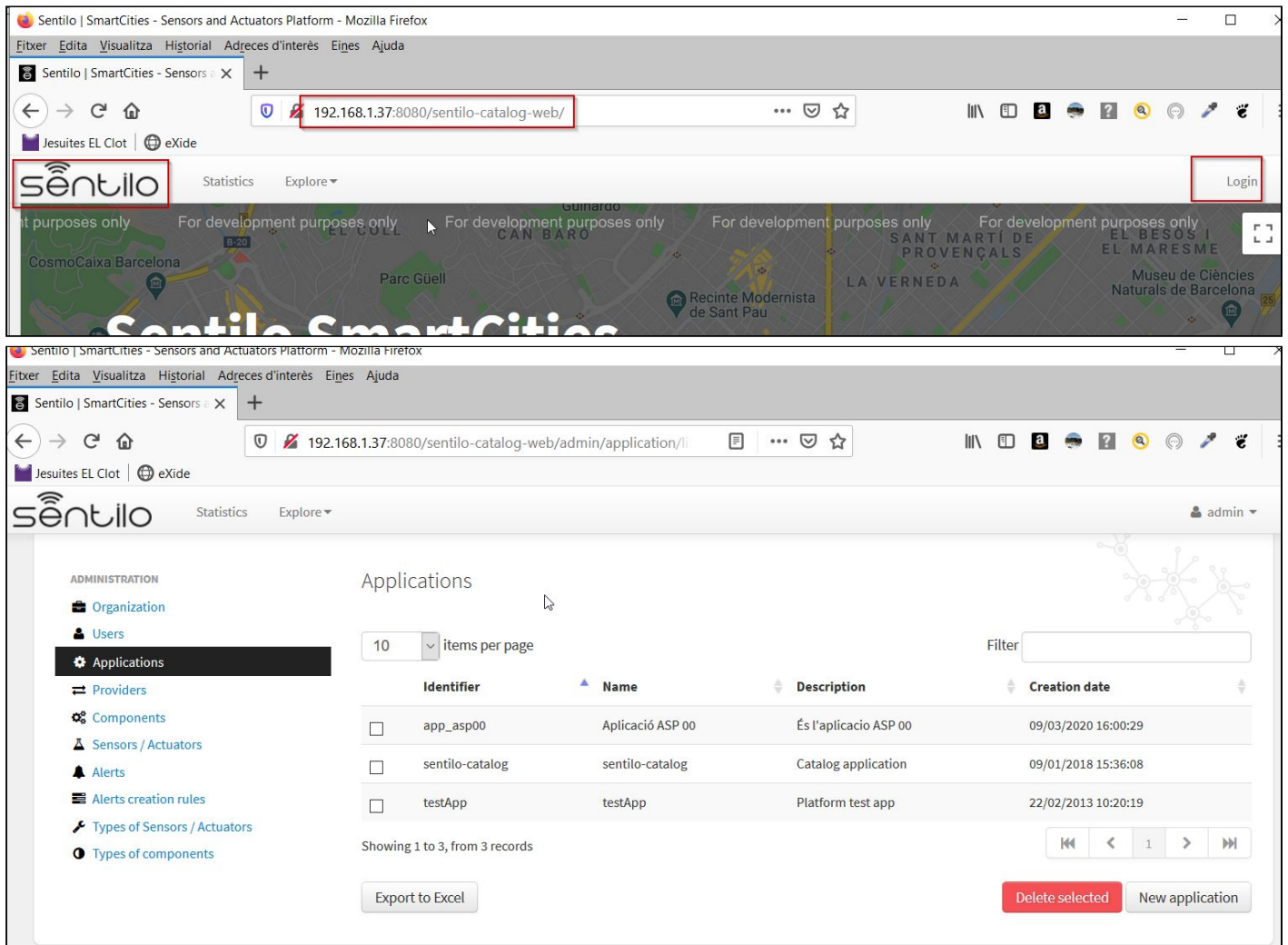
Nom i Cognoms

Arnau Subirós Puigarnau

Data

10-03-2020

- Visualitzo la IP de la interfície eth0 : 192.168.1.37/24
- Obro el navegador Chrome i escric : <http://192.168.1.37:8080/sentilo-catalog-web/>



Sentilo | SmartCities - Sensors and Actuators Platform - Mozilla Firefox

192.168.1.37:8080/sentilo-catalog-web/

sentilo Statistics Explore Login

For development purposes only

Sentilo SmartCities

Sentilo | SmartCities - Sensors and Actuators Platform - Mozilla Firefox

192.168.1.37:8080/sentilo-catalog-web/admin/application/li

sentilo Statistics Explore admin

ADMINISTRATION

- Organization
- Users
- Applications**
- Providers
- Components
- Sensors / Actuators
- Alerts
- Alerts creation rules
- Types of Sensors / Actuators
- Types of components

Applications

10 items per page

Filter

Identifier	Name	Description	Creation date
<input type="checkbox"/> app_asp00	Aplicació ASP 00	És l'aplicació ASP 00	09/03/2020 16:00:29
<input type="checkbox"/> sentilo-catalog	sentilo-catalog	Catalog application	09/01/2018 15:36:08
<input type="checkbox"/> testApp	testApp	Platform test app	22/02/2013 10:20:19

Showing 1 to 3, from 3 records

Export to Excel

Delete selected New application

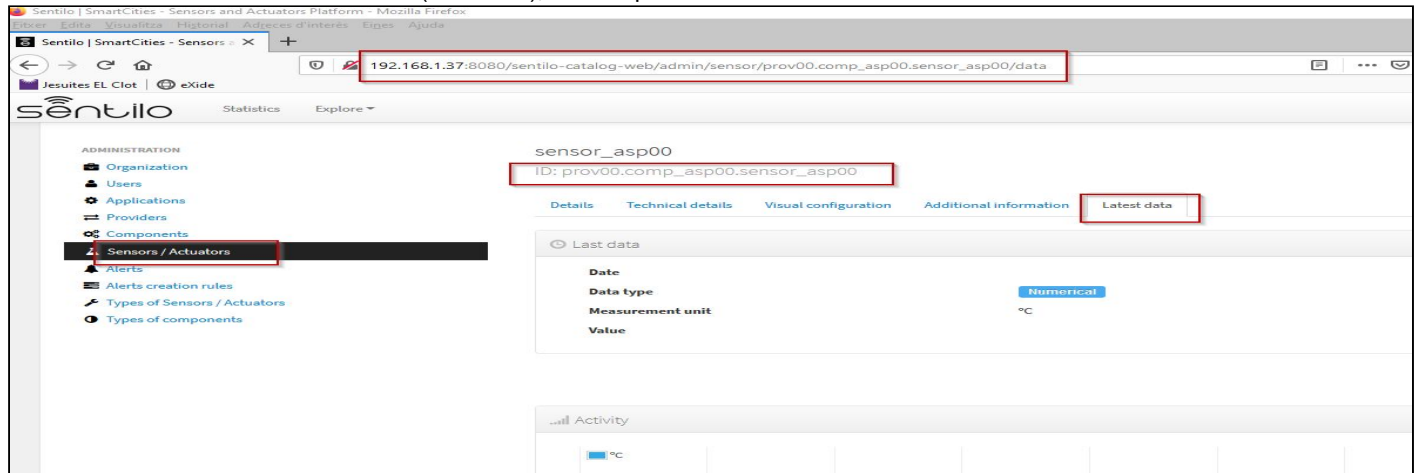
Nom i Cognoms

Arnau Subirós Puigarnau

Data

10-03-2020

- Podem veure el sensor creat (el seu ID), com es pot veure encara no té dades. Ara les enviarem des del terminal



Nom i Cognoms

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Data

10-03-2020

• AFEGIR DADES AL SENSOR de SENTILO

Important saber el ID de l'aplicació i el token

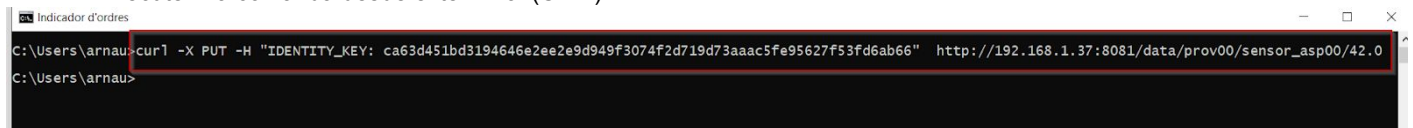
- ID: **app_asp00**
- Authorization Token : **ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66**

- Obrim un editor i escrivim la comanda



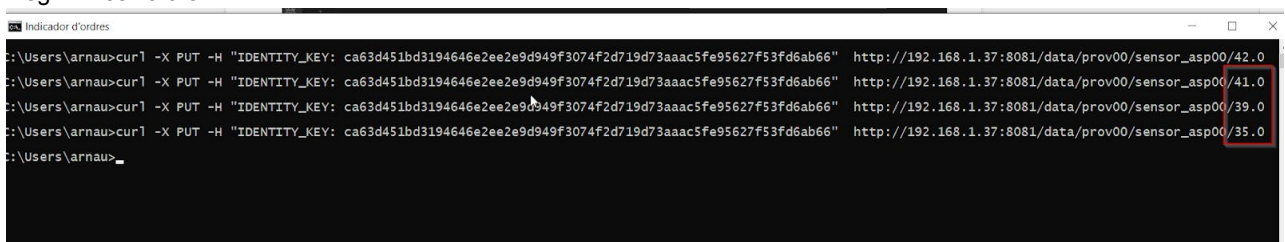
```
notes_sentilo.txt
1 //NOTES SENILO
2 //AFEGIR DADES al SENSOR
3
4 IP HOME : http://192.168.1.37:8080/sentilo-catalog-web
5
6 curl -X PUT -H "IDENTITY_KEY: ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66" http://192.168.1.37:8081/data/prov00/sensor_asp00/42.0
7
8
9
```

- Executem la comanda desde el terminal (CMD)



```
Indicador d'ordres
C:\Users\arnau>curl -X PUT -H "IDENTITY_KEY: ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66" http://192.168.1.37:8081/data/prov00/sensor_asp00/42.0
C:\Users\arnau>
```

- Afegim més valors



```
Indicador d'ordres
C:\Users\arnau>curl -X PUT -H "IDENTITY_KEY: ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66" http://192.168.1.37:8081/data/prov00/sensor_asp00/42.0
C:\Users\arnau>curl -X PUT -H "IDENTITY_KEY: ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66" http://192.168.1.37:8081/data/prov00/sensor_asp00/41.0
C:\Users\arnau>curl -X PUT -H "IDENTITY_KEY: ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66" http://192.168.1.37:8081/data/prov00/sensor_asp00/39.0
C:\Users\arnau>curl -X PUT -H "IDENTITY_KEY: ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66" http://192.168.1.37:8081/data/prov00/sensor_asp00/35.0
C:\Users\arnau>
```

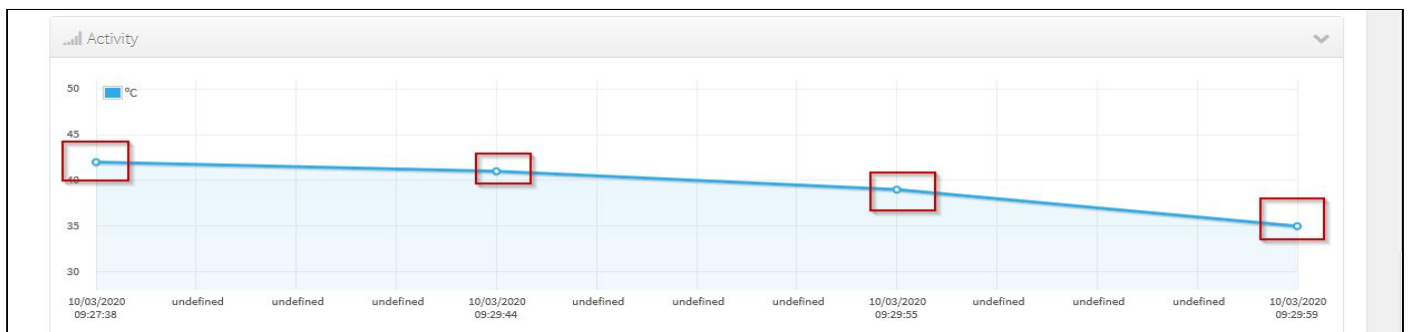
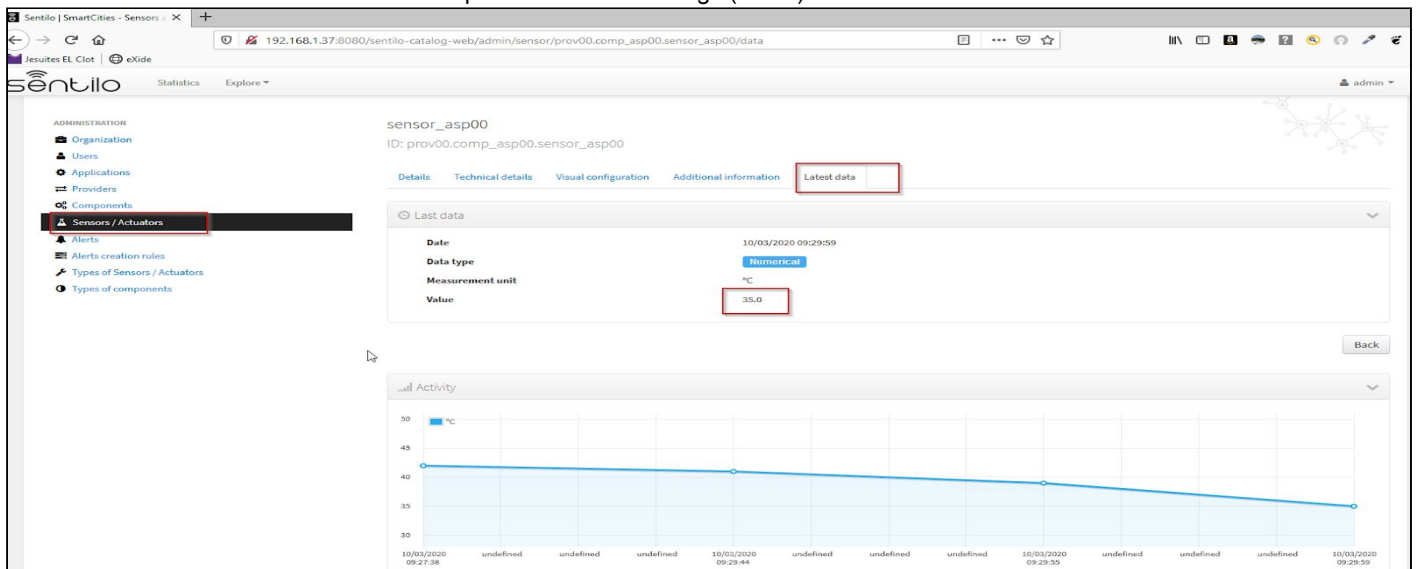

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Data

10-03-2020

- Desde el navegador tornem accedir a Sentilo i seleccionem el sensor que hem creat per visualitzar les dades (en el nostre cas, valors de temperatura) que hem afegit.
 - En “value” ens apareix l’últim valor afegit (35°C)



Nom i Cognoms

Arnau Subirós Puigarnau

Data

10-03-2020

● ENVIAR DADES de ESP8266 al sensor de SENTILO

Requisits:

- Arduino IDE
 - https://github.com/jordibinefa/arduino-IDE-codes/tree/master/esp8266_sentilo_01
- placa ESP8266
- màquina virtual amb Sentilo
- navegador (amb la IP de Sentilo) per interactuar de forma gràfica



```
esp8266_sentilo_01 | Arduino 1.8.5
Fitxer Edita Esbós Eines Ajuda

esp8266_sentilo_01 sentiloCredentials.h wifiCredentials.h

4 #include "wifiCredentials.h"
5 #include "sentiloCredentials.h"
6
7 // WiFi{
8 void vDelayESP(unsigned long ulMilliseconds) {
9     unsigned long ulPreviousMillis = millis();
10
11     do {
12         yield();
13     } while (millis() - ulPreviousMillis <= ulMilliseconds);
14 }
15
16 void vConnectToWiFi(const char* szSsid, const char* szPwd) {
17     char ssid[MAX_STRING_SIZE], pwd[MAX_STRING_SIZE];
18
19     Serial.println("Connecting to WiFi network: " + String(szSsid) + ", pwd: " + String(szPwd));
20
21     WiFi.begin(szSsid, szPwd);
22 }
```

Nom i Cognoms

Arnau Subirós Puigarnau

Data

10-03-2020

- Desde Arduino IDE un cop hem obert “ [esp866_sentilo_01.ino](#) ” , haurem de modificar 2 arxius:
 - [sentiloCredentials.h](#)
 - [wifiCredentials.h](#)



```

1 /***** SENTILO *****/
2 /***** SENTILO *****/
3 /***** SENTILO *****/
4 char* DATA_BASE_PATH = "/data";
5 char* IDENTITY_KEY_HEADER = "identity_key";
6
7 char* apiKey = "ca63d451bd3194646e2ee2e9d949f3074f2d719d73aac5fe95627f53fd6ab66"; // Authorization Token de app_asp00
8 char* ip = "192.168.1.37"; // la IP de Sentilo
9 int port = 8081;
10 char* componentId = "comp_asp00"; // ID Component
11 char* providerId = "prov00"; // ID proveidor
12 char* sensorId = "sensor_asp00"; // ID sensor
13
14
15
16

```



```

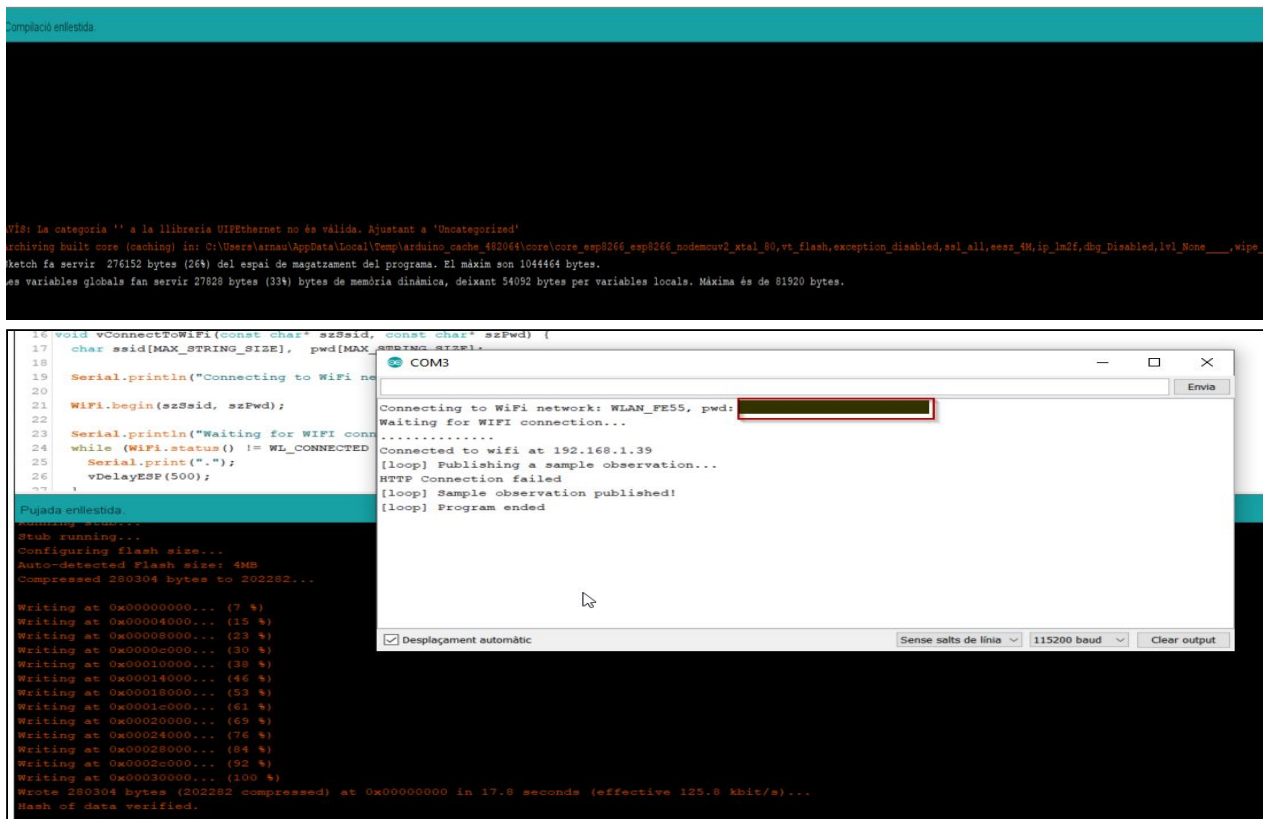
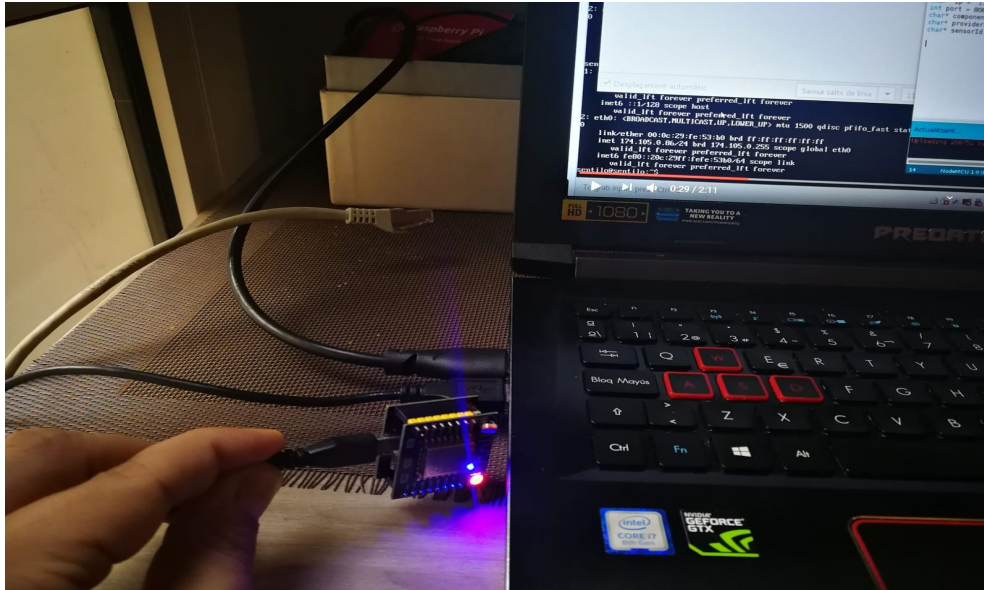
1 #define N_WIFIS 5
2 #define MAX_STRING_SIZE 15
3
4 struct stWifiList {
5     const char* szSSID;
6     const char* szPWD;
7 };
8
9 struct stWifiList stWifi[N_WIFIS] = {
10     {"iotcat", "1234567890"},
11     {"IoT-eCat", "1234567890"},
12     {"WLAN_F", "JesuitesElClot"},
13     {"JESUITESFF", "internetcoses"}
14 };
15

```

Data

10-03-2020

- Un cop hem modificat les dues llibreries , haurem de cargar el codi a una placa esp2866.



Data

10-03-2020

The screenshot shows a terminal window titled "COM3". The output text is as follows:

```
#f'of$g'fffQcOpffdsdrd8fgfQ^Q^l^GQ^b^'\f|QsfQ^fbffogflffl'QfQQ^'Ql'QQQ;0f'Q^c^fQlQ{Q^Q#Q$QfQldfQf'l'QfsofQConnecting
Waiting for WIFI connection...

Connected to wifi at 192.168.1.39
[loop] Publishing a sample observation...
write: PUT /data/prov00/sensor_esp00/0.29 HTTP/1.1
write: identity_key: ca63d451bd3194646e2ee2e9d949f3074f2d719d73aaac5fe95627f53fd6ab66
write: Host: 192.168.1.37:8081
write: Content-Length: 4
write:
0.29

write: Connection: close
HTTP: call readResponse
HTTP: NON-NULL RESPONSE POINTER:
HTTP: RESPONSE:
HTTP: return readResponse3
HTTP: return readResponse
HTTP: stop client
HTTP: client stopped
[loop] Sample observation published!
[loop] Program ended
```

At the bottom of the window, there are controls: a checked checkbox labeled "Desplaçament automàtic", a dropdown menu set to "Sense salts de línia", another dropdown menu set to "115200 baud", and a button labeled "Clear output".

Nom i Cognoms

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Data

10-03-2020

- Finalment des de d'un navegador web accedeixo al sensor que havia creat a Sentilo on constarà el nou valor enviat desde la placa esp2866.

