. Wiki for WRM and IoT Ticket

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by tka 14.2.2016
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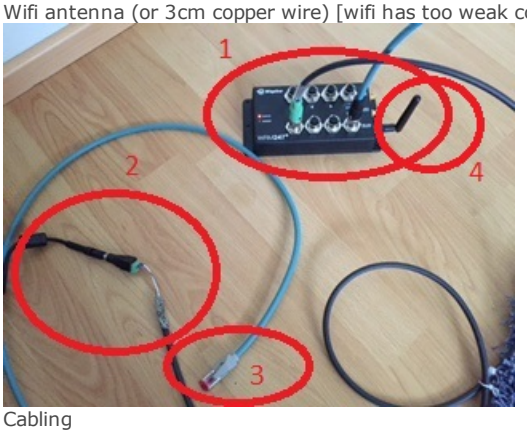
Wapice WRM+ module

1. Installation of WRM

To start you need (all of these)

1. WRM module
2. Power source (5-53v) and special cable for power input
3. Ethernet cable with special connector
4. Wifi antenna (or 3cm copper wire) [wifi has too weak connunication without the antenna]



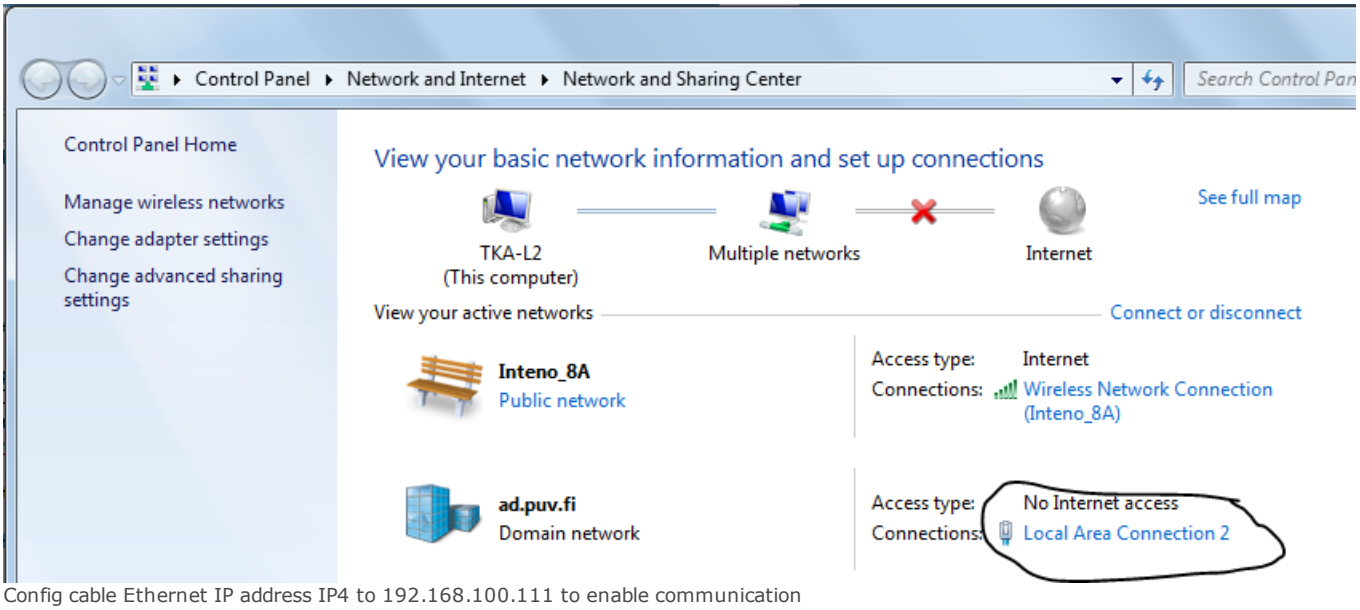
Cabling

2. Setting up the communication between WRM and the process and WRM and IoT Ticket

2.1 Connecting WRM locally with RJ-45

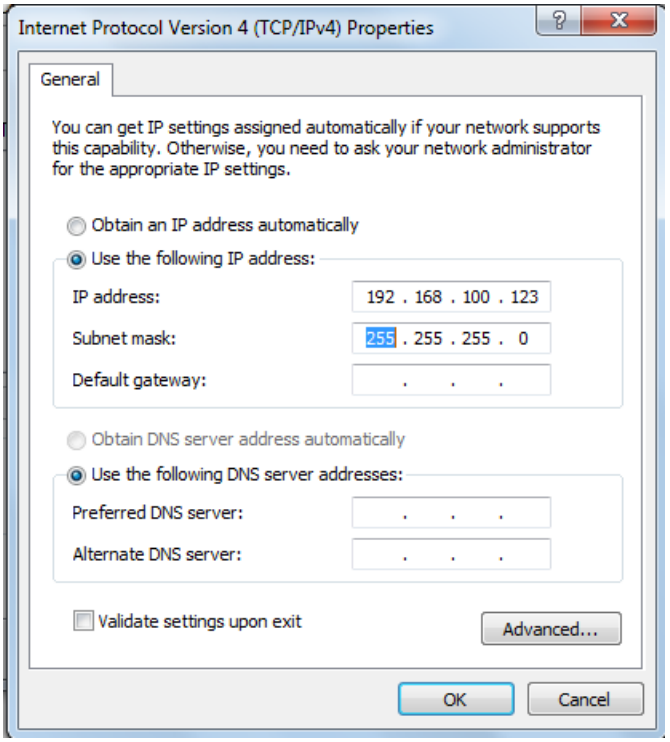
To initial communication with the module:

#Config your PC to the network 192.168.100.111, meaning use a fixed IP-address for your PC, like under Control Panel\Network and Internet\Network and Sharing Center



Config cable Ethernet IP address IP4 to 192.168.100.111 to enable communication

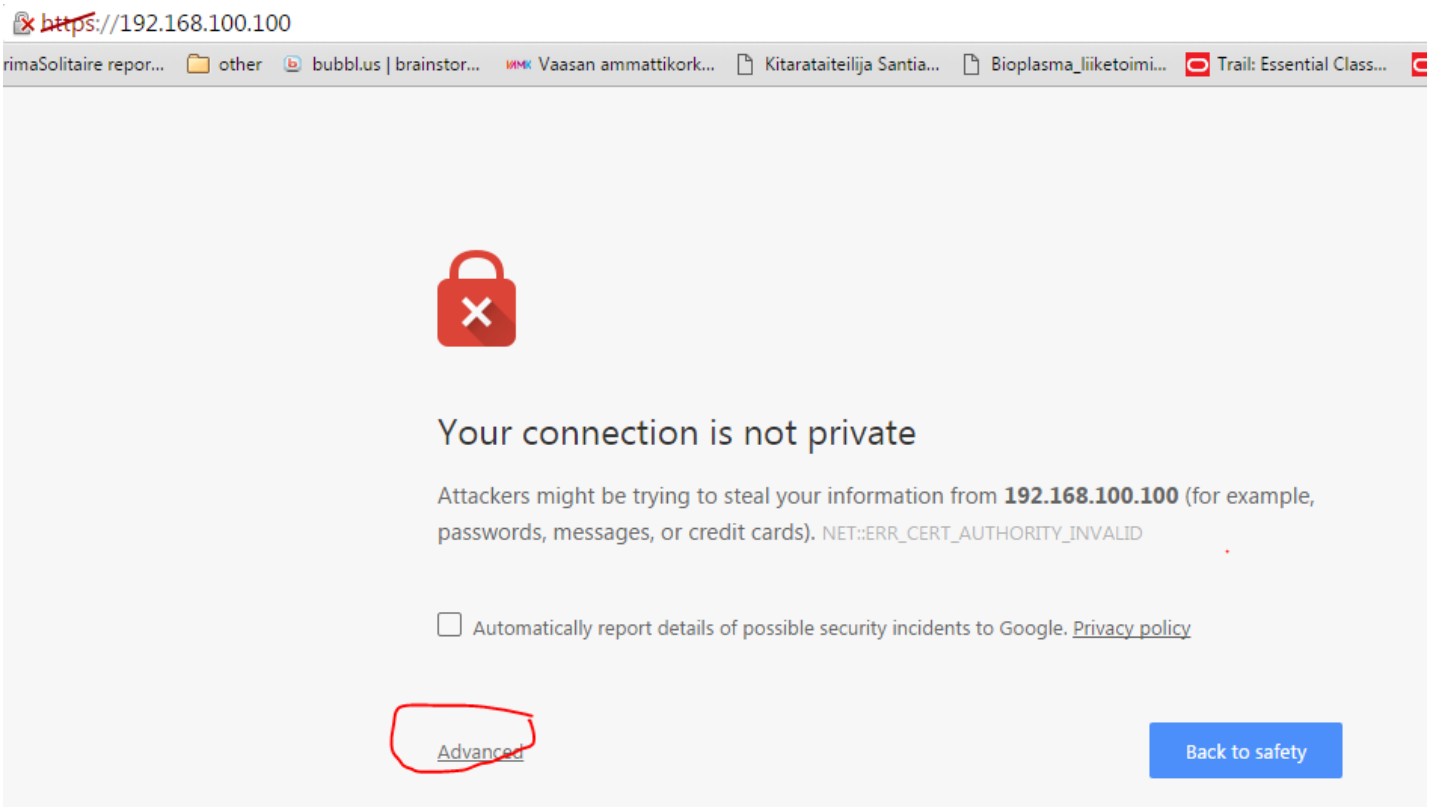
#And then edit the settings Properties and Internet Protocol Version 4 settings

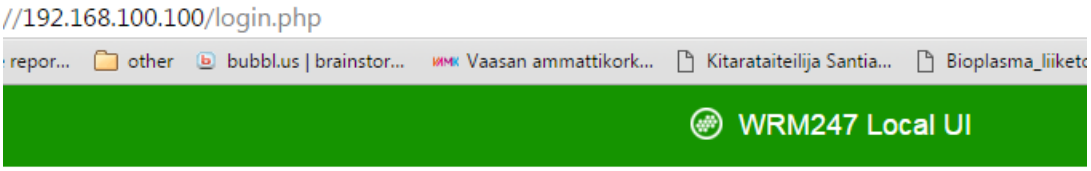


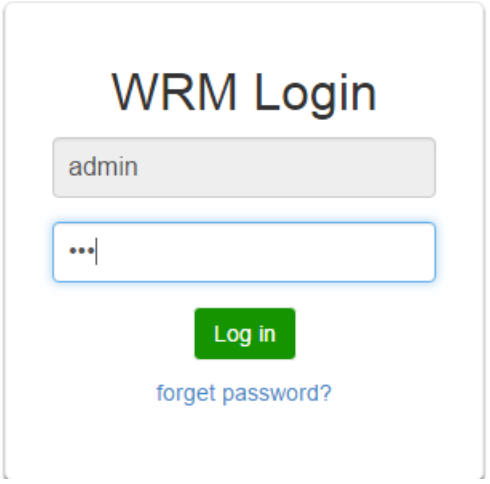
IP-address and subnet mask for local RJ-45 fixed cable communication

2.2 Starting web -connection

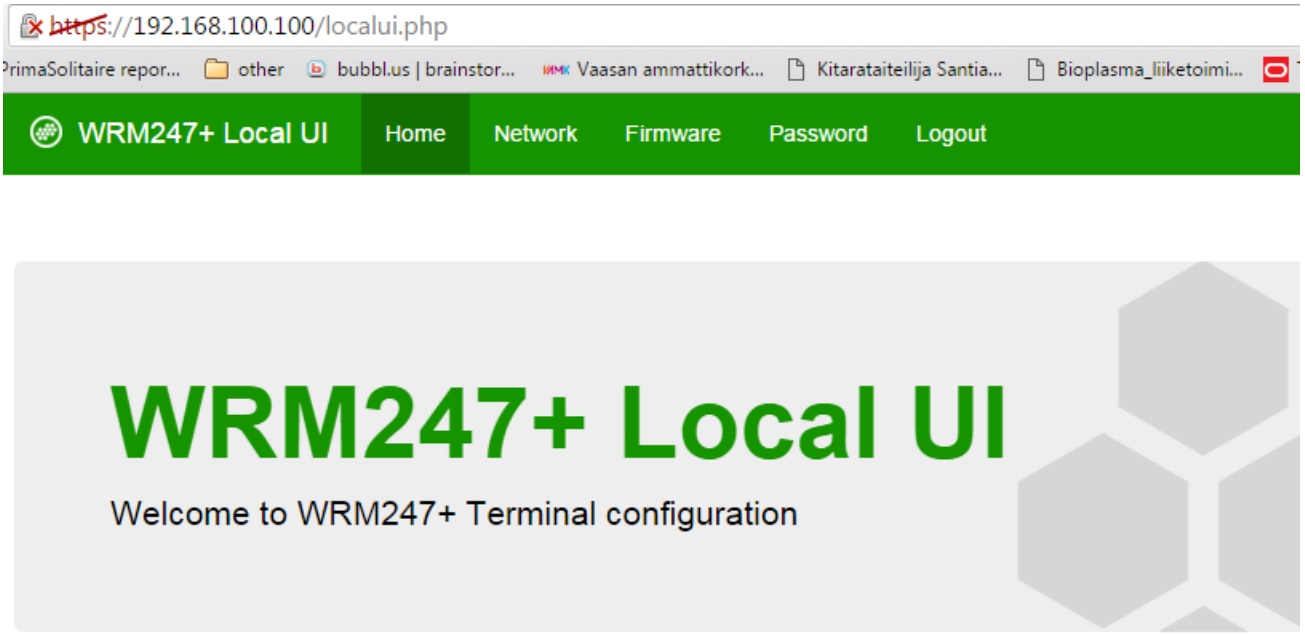
1. **Connect WRM device (with Ethernet port 1) [[http://192.168.100.100]]**
2. **Login (default username/password admin/root)**
3. **Press proceed (inspite of the warning)**

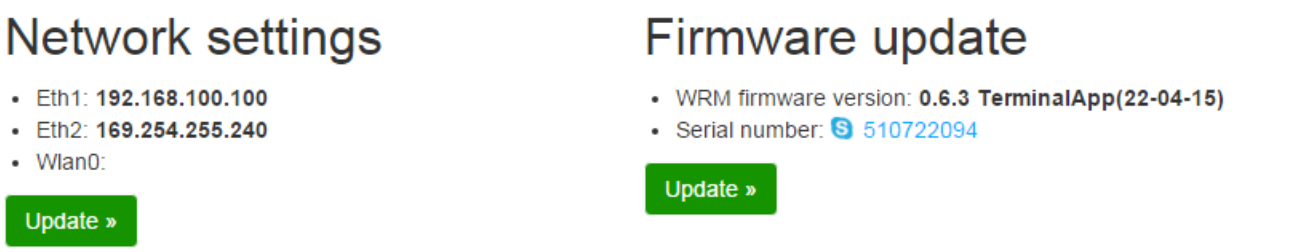




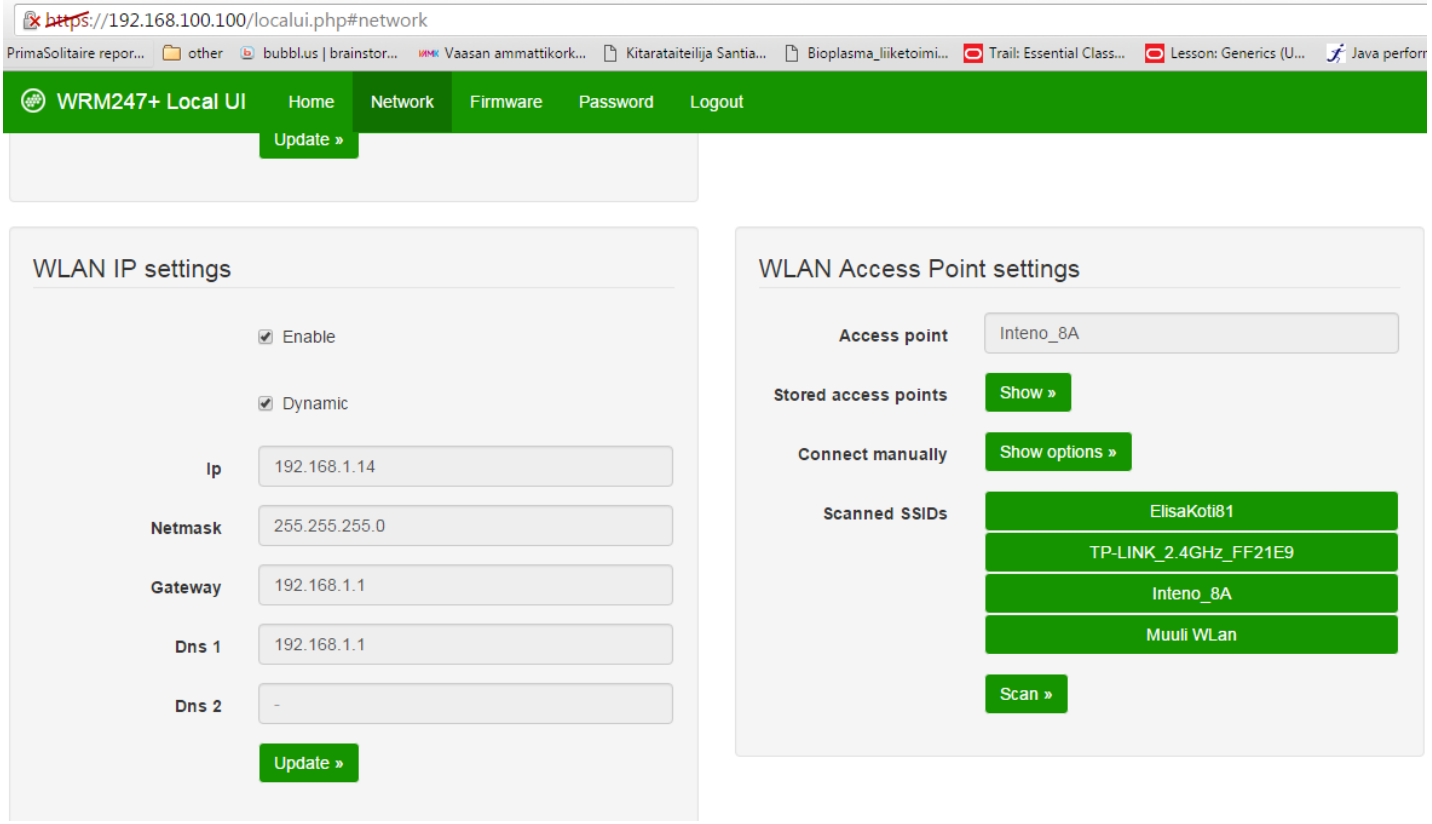


2.3 Enable Wireless communication of the module





1. Check the Firmware version and serial number and write them on paper (you need them later when adding the terminal to IoT Ticket)
2. Select Update for Network settings
3. Scan WLAN Access points
4. Connect manually by selecting the option and enterning the SSID name and the Passphrase



3. Connect to IoT Ticket (registered user, ask username and password from the teacher)

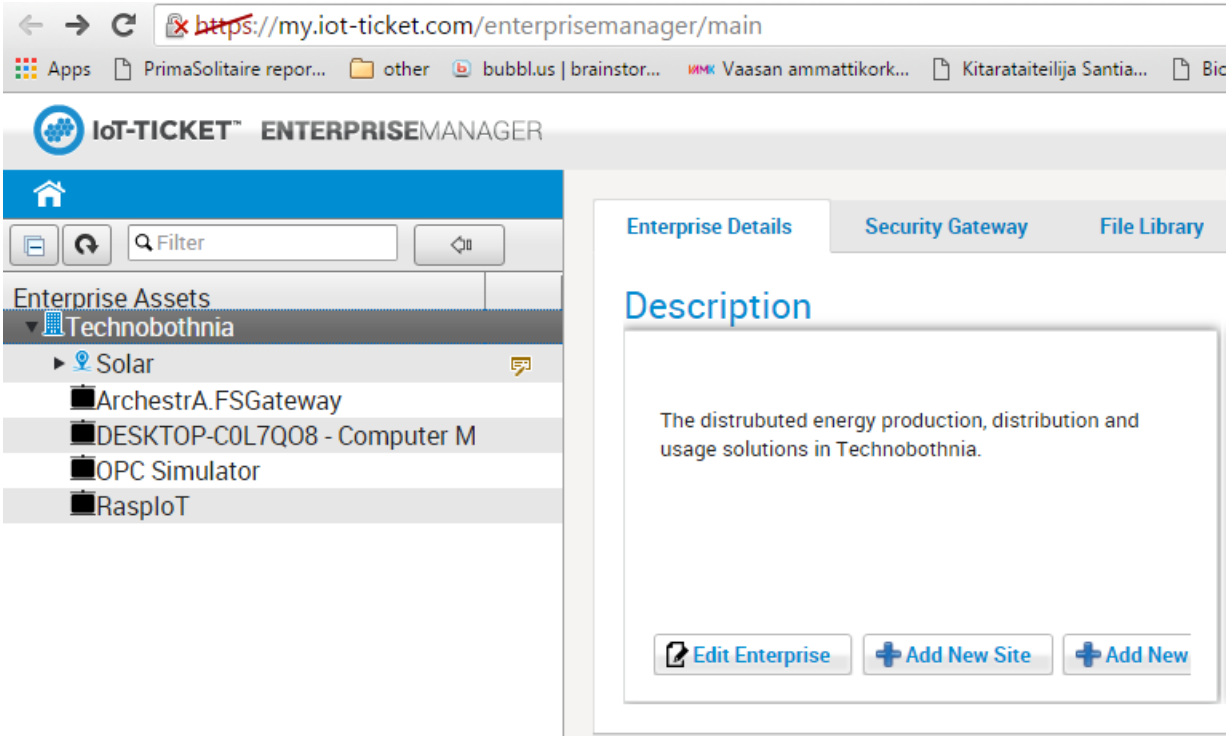
3.1 Login to [[https://my.iot-ticket.com/Dashboard/main/root/#desktop]]

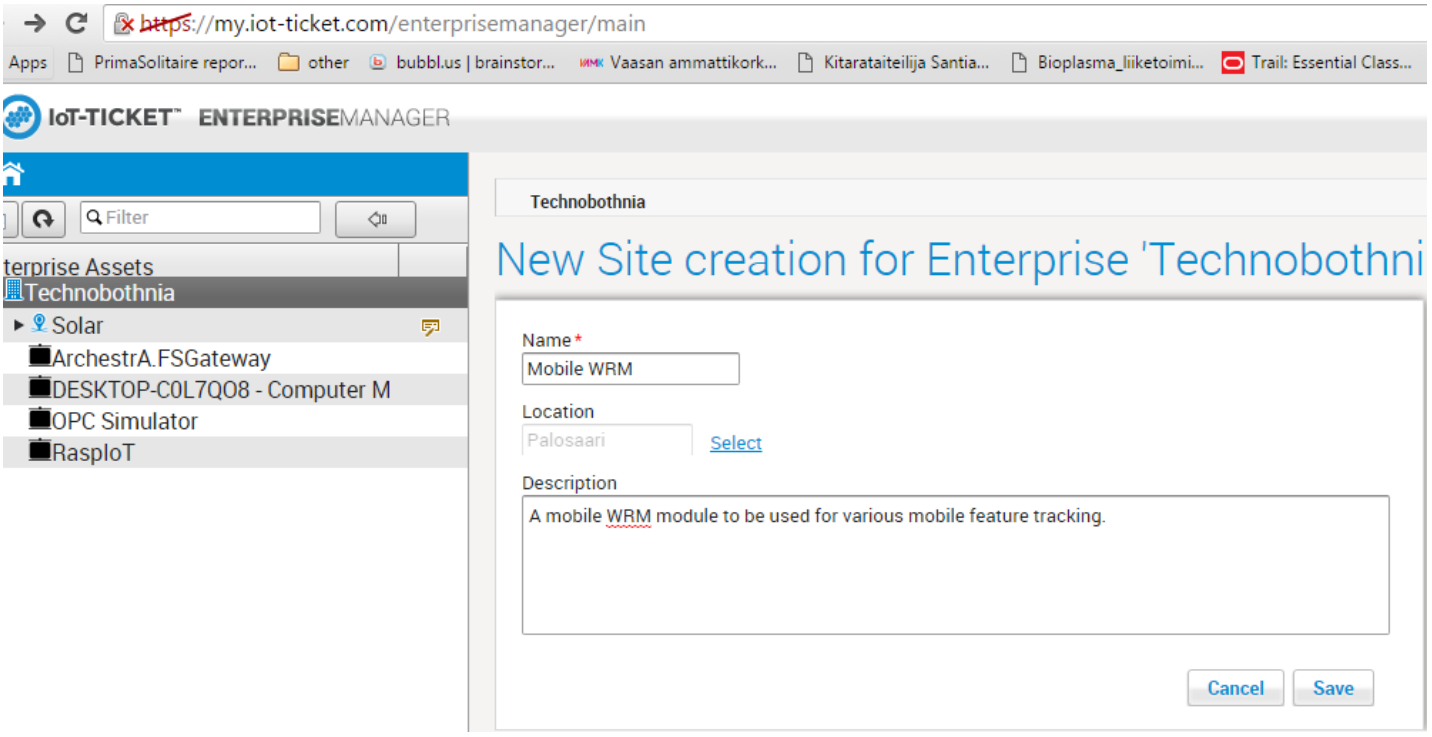
1. Select the red ball at the buttom of the page and open the menu

2. Select Enterprise manager from the tree on the left side
3. Select Technobothnia from the tree on the left side

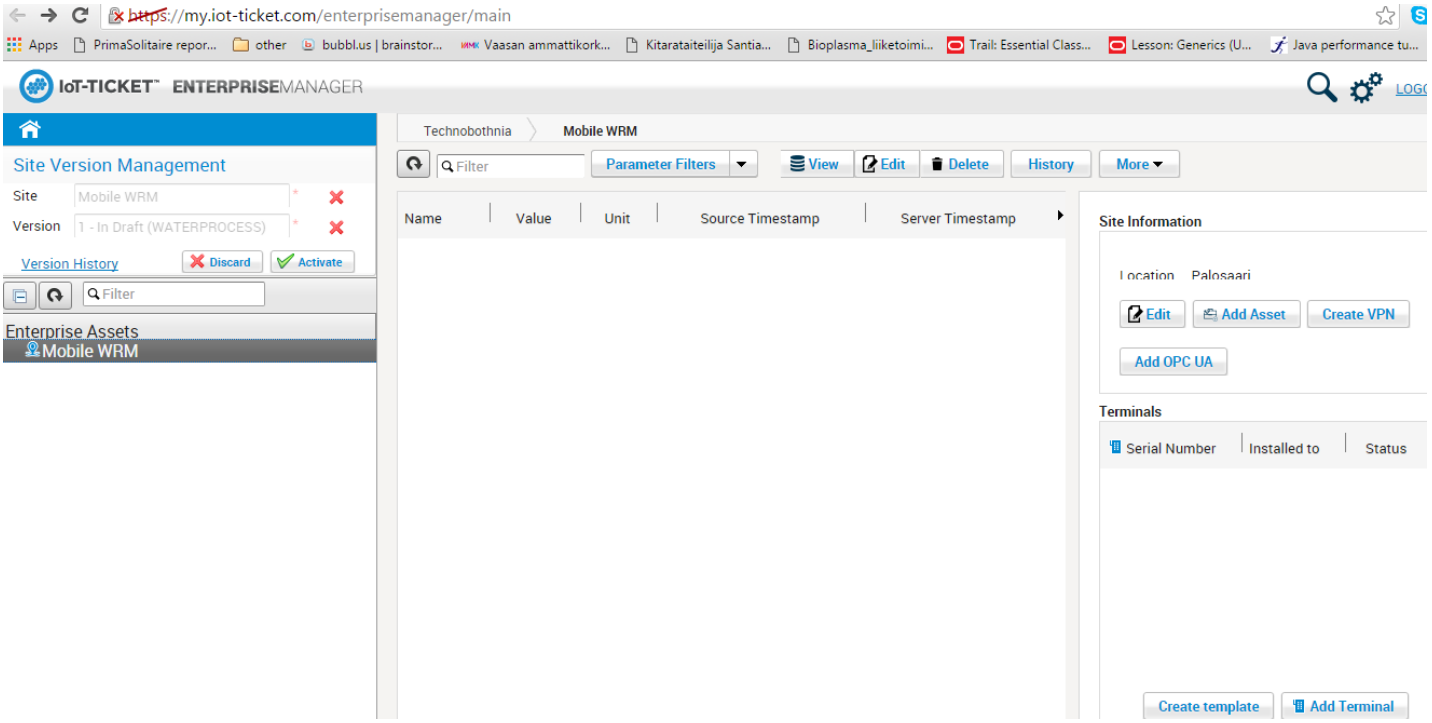
3.2 Add new site under Technobothnia

Site is a physical location. Now we add a new mobile WRM device moving around Palosaari, thus we create a nes site (even not specific location)

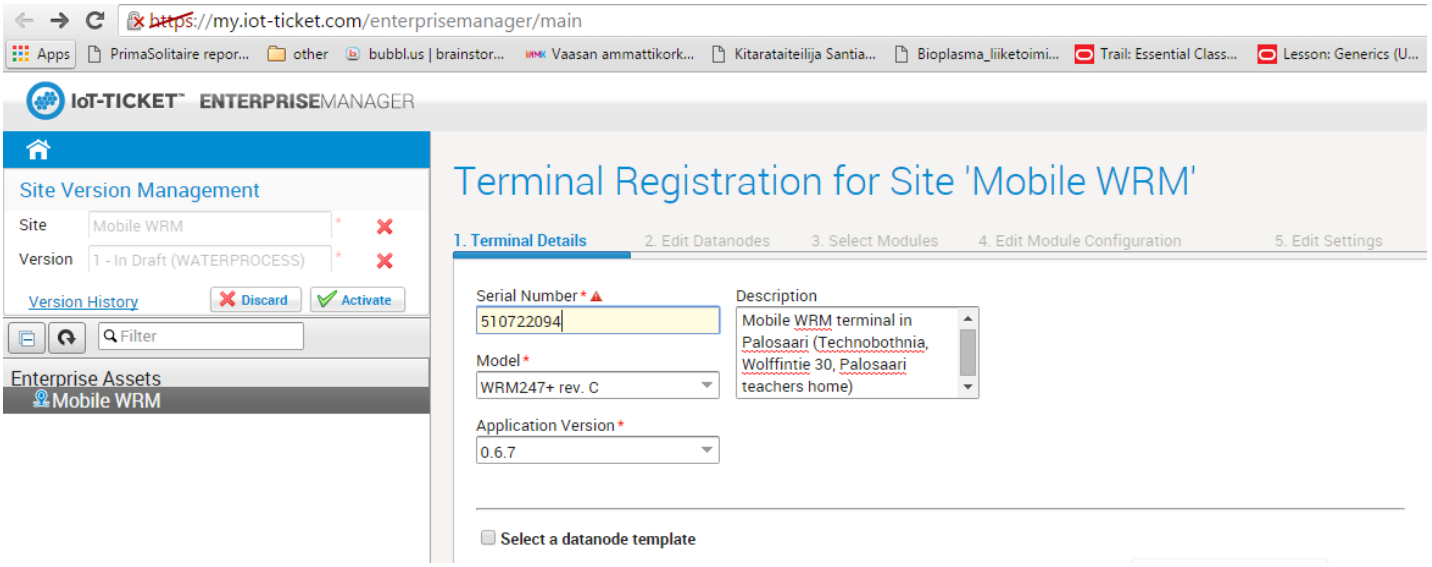




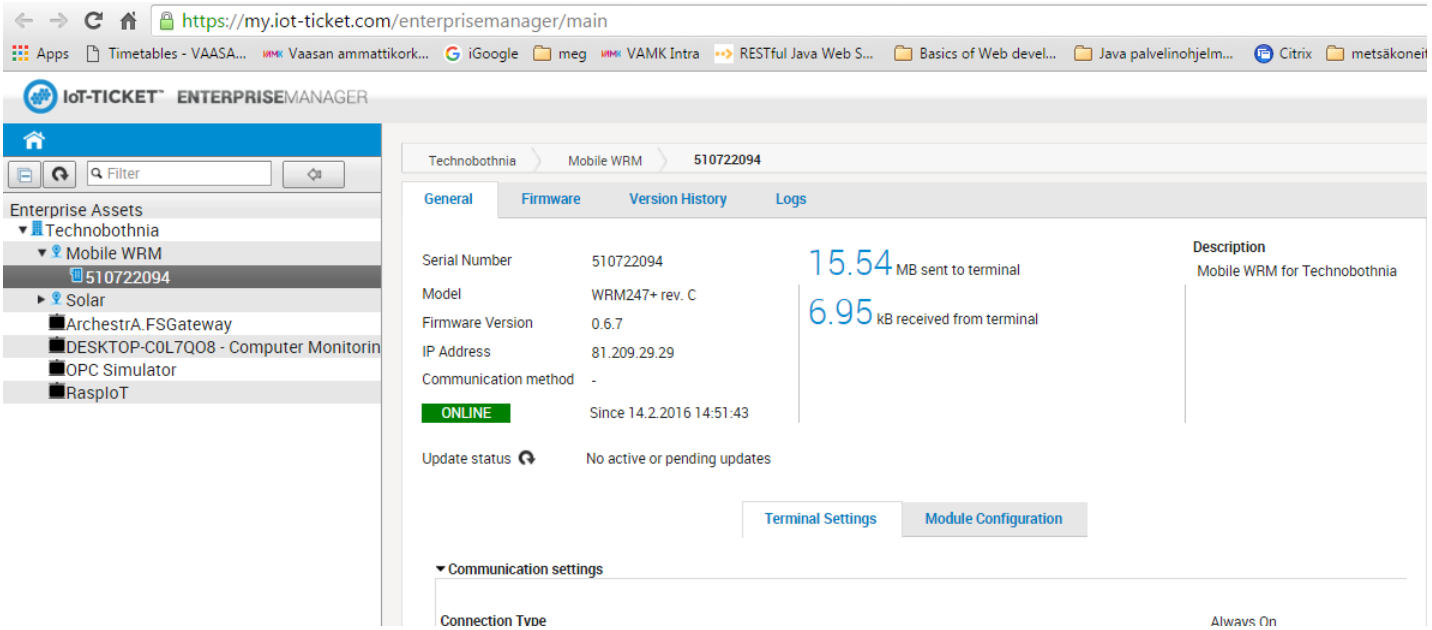
3.3 Select the site and add a new terminal (WRM-module)



You have to have an unique serial for the WRM-device

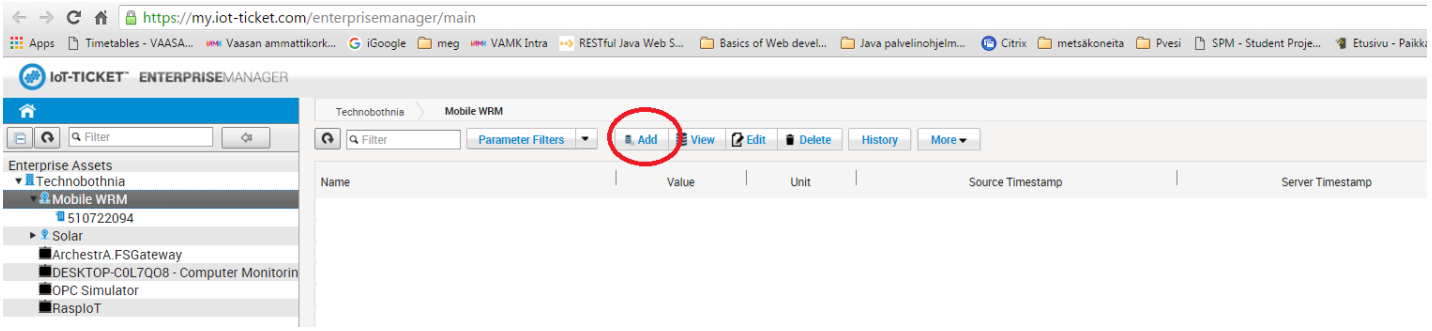


Select the device from the left tree menu and check that it is online (thus Wifi is used for the Internet connection)

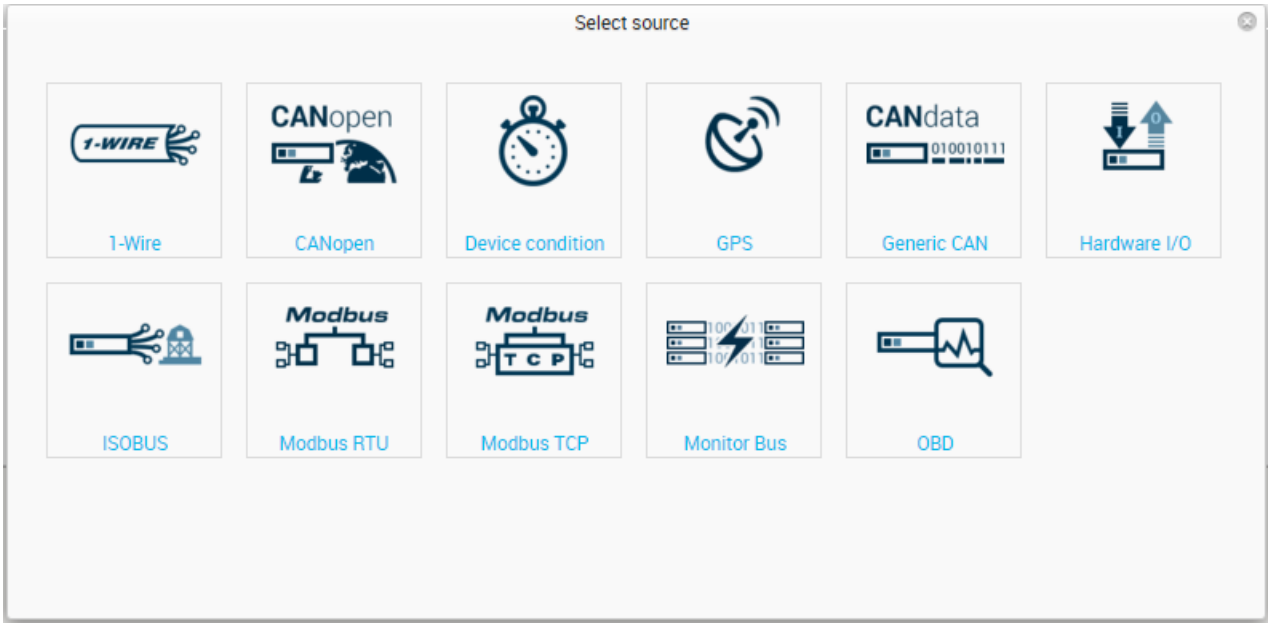


4. Add new datanodes

4.1 Select the site to add the datanodes from the menu left

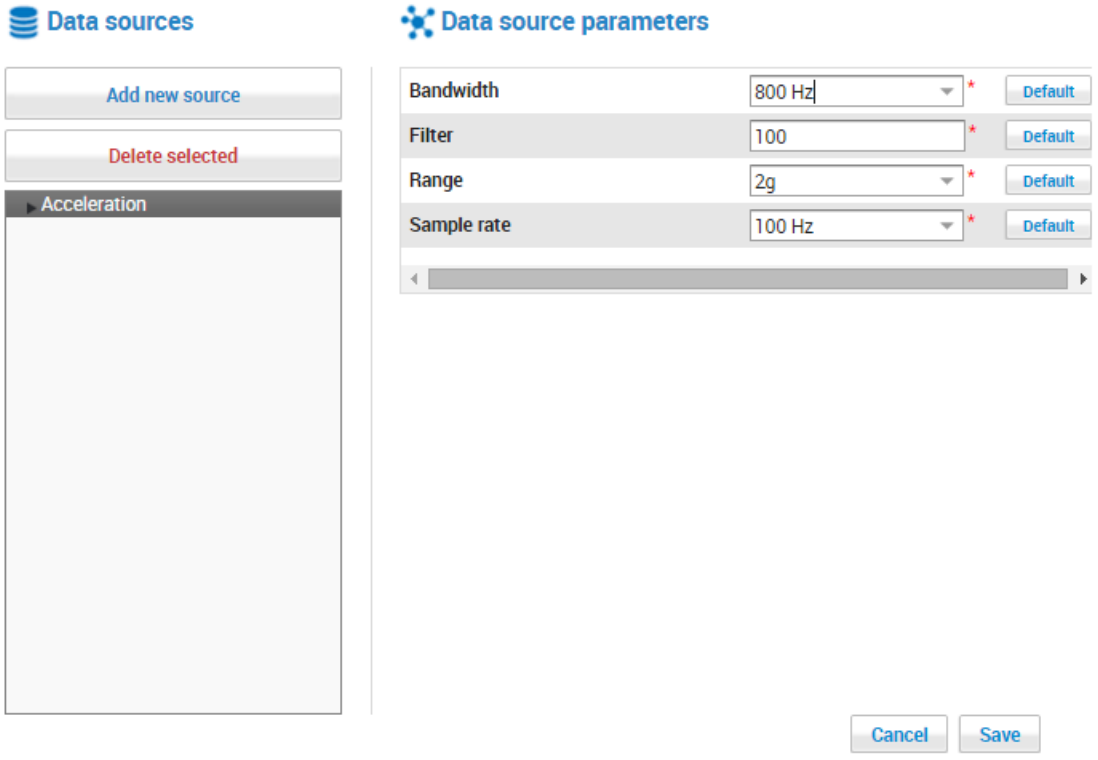


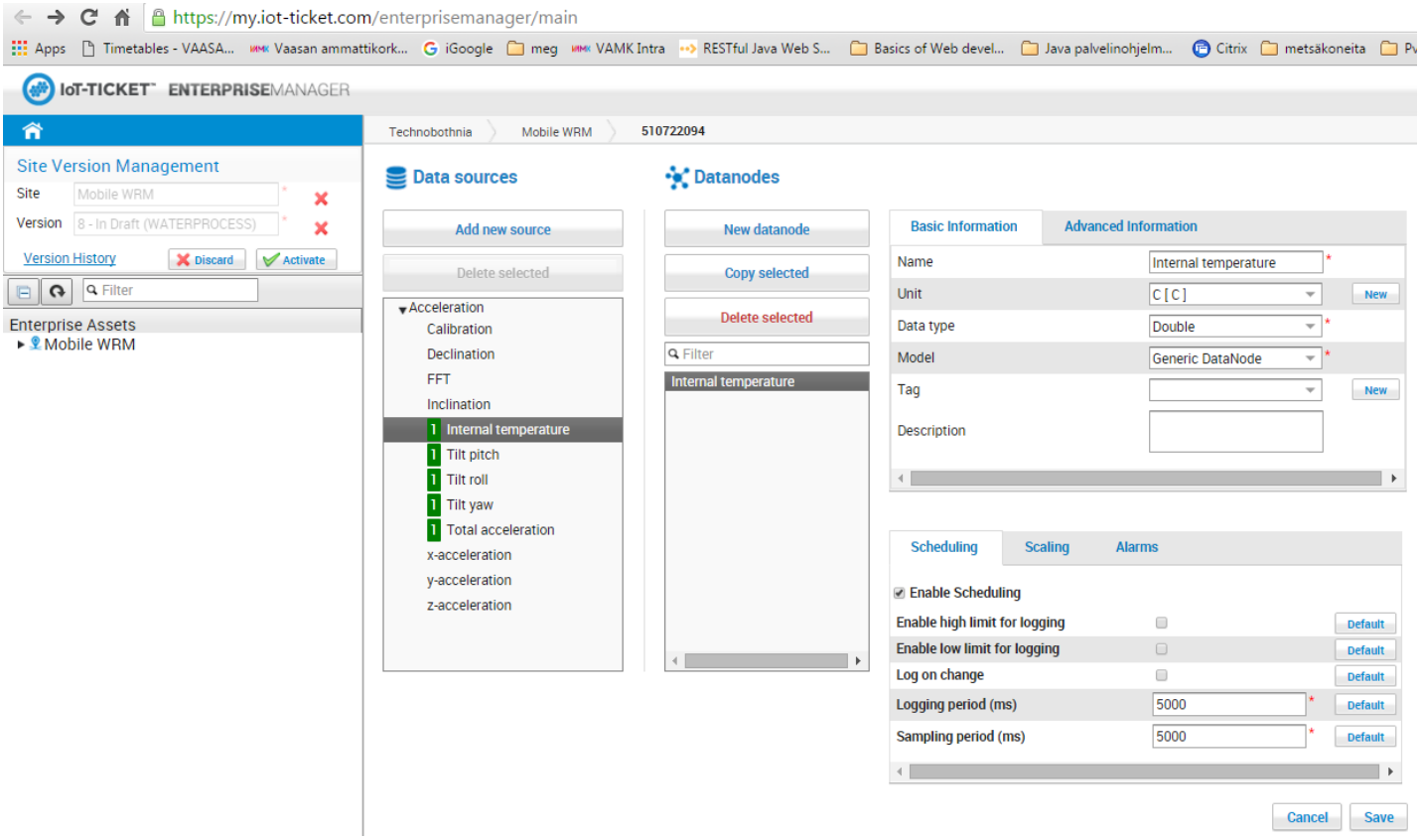
First time connecting the data nodes the system asks what is the initial data source



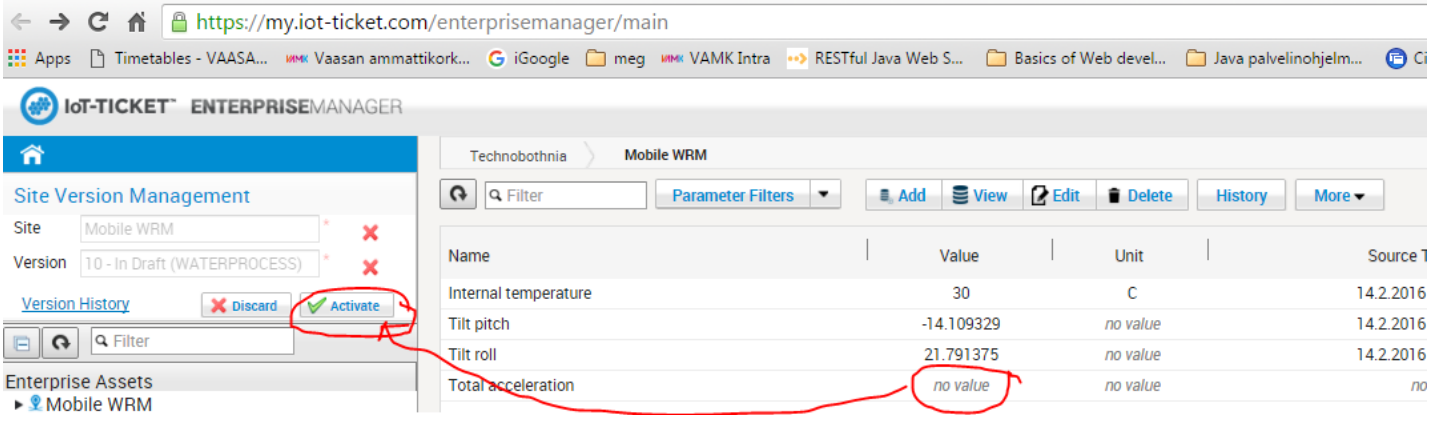
Select acceleration to get access to the acceleration data (and test the WRM module initial connection)

4.2 Set datasource

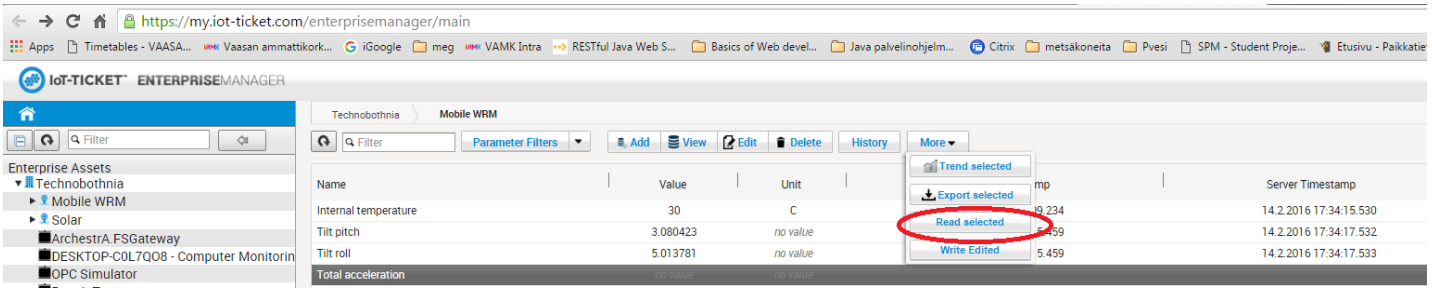




4.3 Activate after adding datanode



4.4 Read datanode value after activation

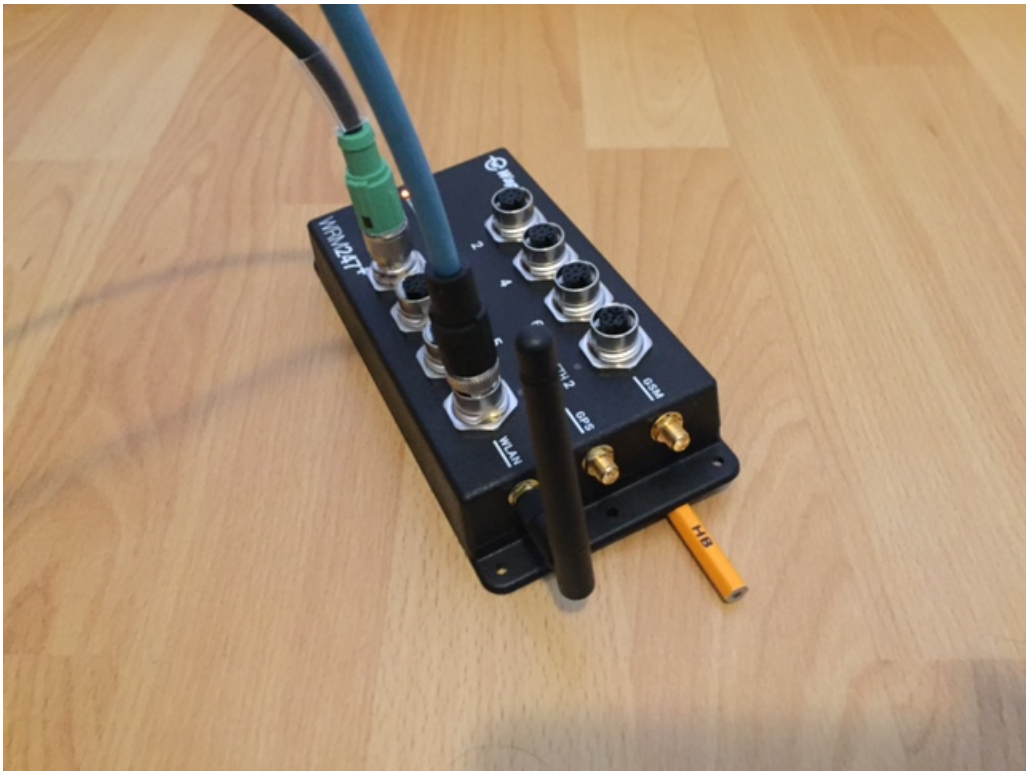


4.5 Understanding the tilt and yaw

Tilt pitch positive

Tilt pitch negative

Tilt roll positive



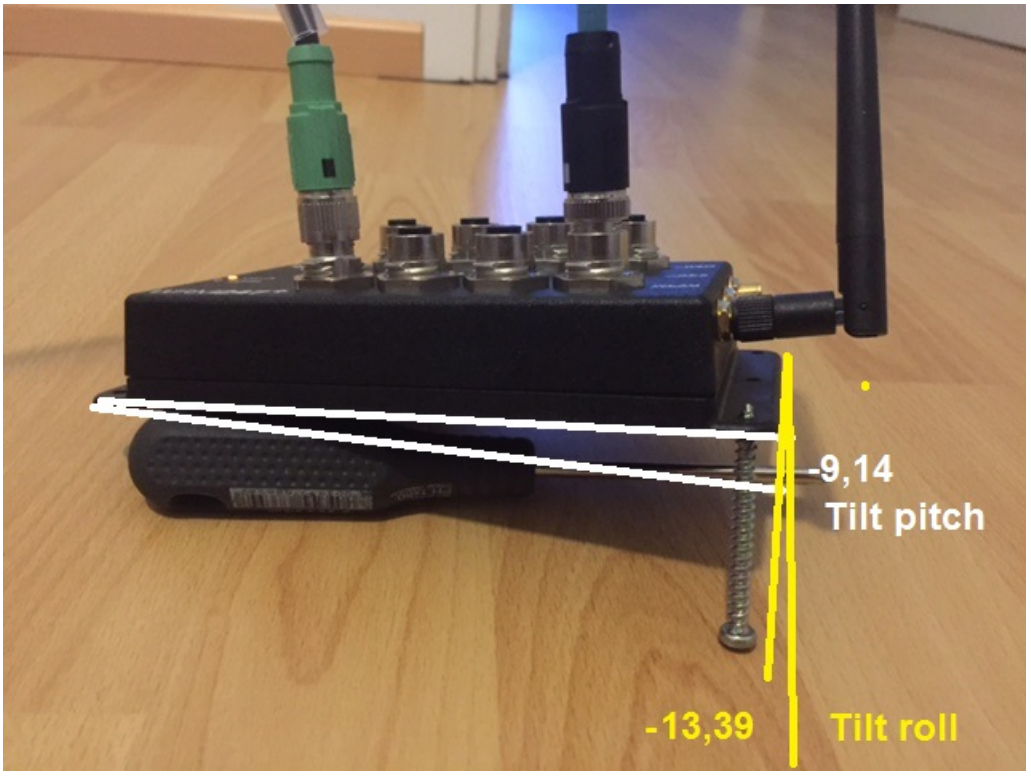
Tilt roll negative

Tilt pith and roll example

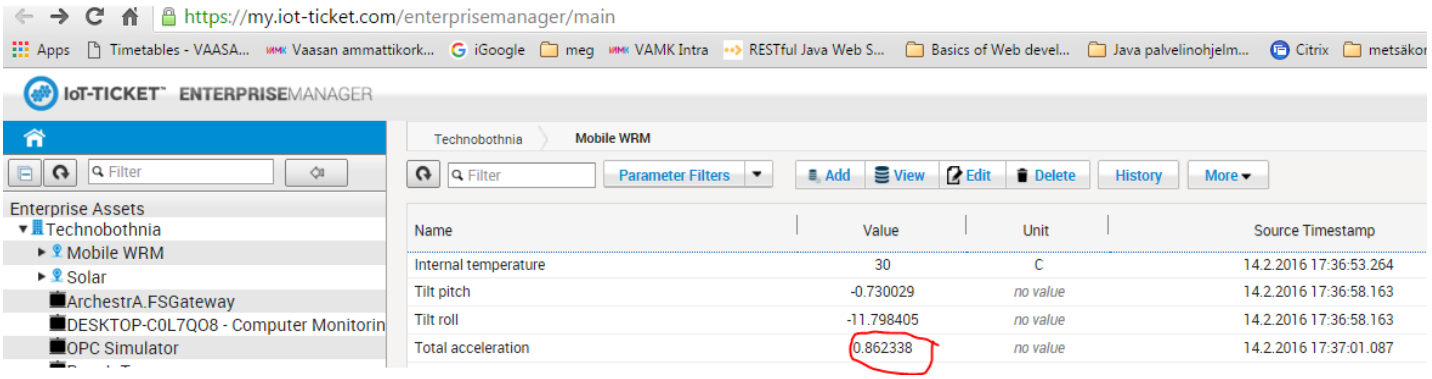
Technobothnia › Mobile WRM

Filter | Parameter Filters | Add | View | Edit | Delete | History | More

Name	Value	Unit	Source Timestamp
Internal temperature	29	C	14.2.2016 17:16:58.521
Tilt pitch	-9.14114	*no value*	14.2.2016 17:16:59.378
Tilt roll	-13.391691	*no value*	14.2.2016 17:16:59.378



4.6 Understanding acceration



[[https://omega.cc.puv.fi/redmine/projects/wrm/wiki/Wiki/edit]]