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# How to use an Open BAT or WLC as a RADIUS server and set up user accounts

- 2022-01-10 - BAT, WLC (HILCOS)

This lesson describes how to configure the RADIUS Server function on an Open BAT or a WLC and set up user accounts.

You may need to refer to the following lessons for a complete working 802.1x environment (Supplicant - Authenticator - Server):

Environment without controller:

- How to configure an Open BAT as 802.1x supplicant
- How to configure an Open BAT as 802.1x authenticator

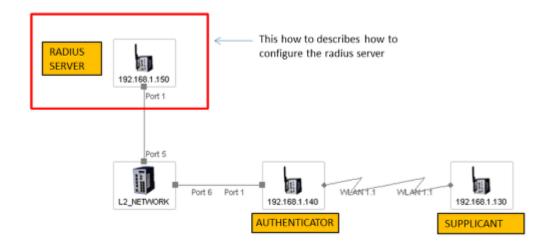
Environment with controller to manage the APs:

- How to configure an Open BAT as 802.1x supplicant
- How to create a profile on a WLC and apply it on BAT Acces points
- How to configure a Radius Profile on the WLC and include it in Logical settings

These How to are complementary and use the following settings for the radius authentication:

EAP - PEAP with MSCHAPv2 as tunnel method.

## Representation



A WLC or an Open BAT can be used as RADIUS Server.

The menus on both are identical but using a BAT the manual upload of a certificate is necessary (step described in this document).

## **Preliminary steps**

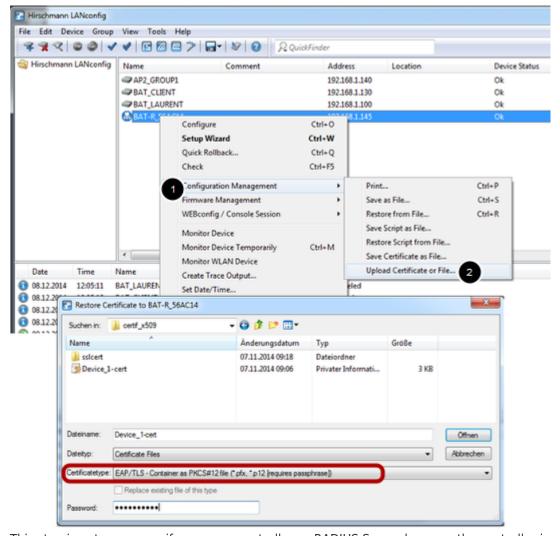
Give the BAT an IP address (in our example: 192.168.1.150)

You can refer to the lesson "How to give an Open BAT or a WLC an IP address"

Add the BAT in LANconfig

You can refer to the lesson "How to discover a BAT or a WLC in LANconfig"

Upload a certificate on the server (if you use a BAT as RADIUS server)



This step is not necessary if you use a controller as RADIUS Server because the controller is able to generate its own certificates.

But, if you use a BAT then you have to do it manually. You'll need a certificate (.pfx or .p12 files, these files contain a private key and its associated certificate).

You can use for testing the attached file

#### SSL certificates

(password for the certificates: hirschmann)

Then from LAN config, right clic on the BAT which has to be used as RADIUS server.

Configuration Management > Upload certificate or File ...

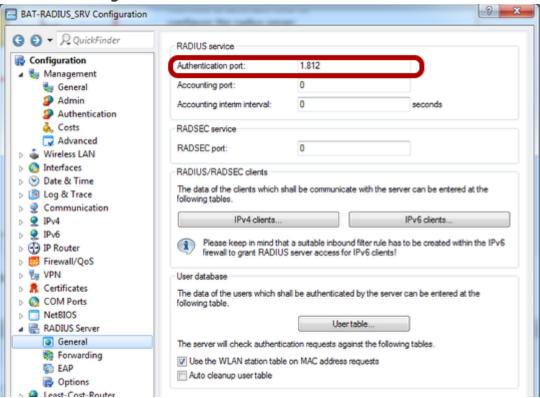
Select the .pfx or .p12 file you want to use and Select "EAP/TLS - Container as PKCS#12 file" as certificate type (it's usually protected by a password)

#### > Oper

The file is uploaded on the BAT

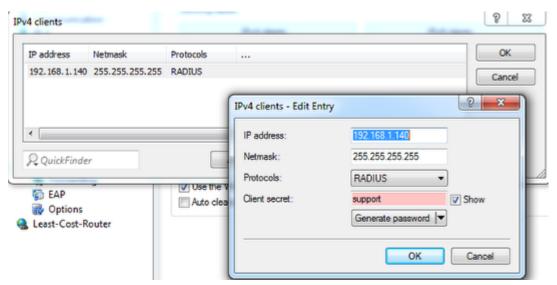
Device status must be "OK" after the upload

### **General settings**



Configuration > RADIUS Server > General Configure the authentication port: 1812

Configure the RADIUS clients list (Authenticators IP address and shared secret)



From the "General" dialog, select IPv4 clients

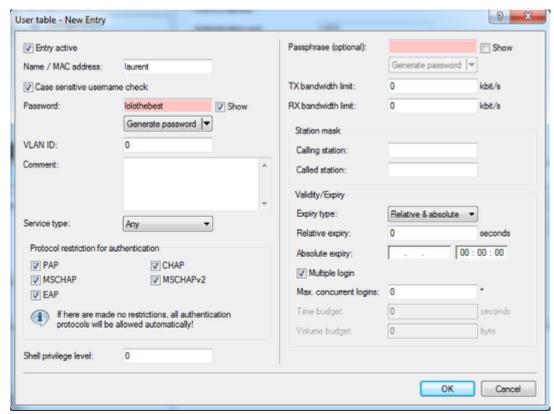
Create a new entry.

The new entry can be a single device (in our example it's only the device 192.168.1.140) but it could be a range of devices (the range is defined by the Netmask)

The shared secret will also be configured on the authenticator ( refer to the lesson "How to configure an Open BAT as 802.1x authenticator")

> 0K

## Set up User accounts



From the "General" dialog, select "User table"

Create a new entry for each user.

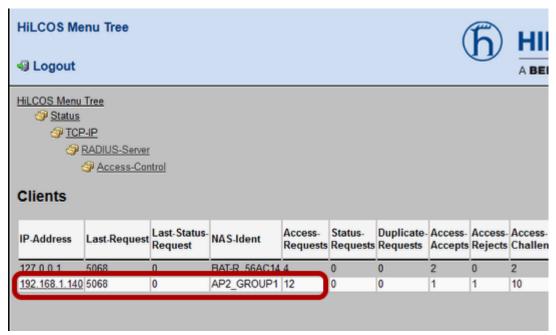
In our case we use just one user: laurent

To enter the name of the user and a password (in our case: lolothebest) is enough The name and the password will be used by the supplicant ( refer to the lesson "How to configure an Open BAT as 802.1x supplicant")

#### > OK

After loading the configuration, your device is erady to be used as RADIUS server

## Check the status of the NAS (Network Access Server or Authenticator)



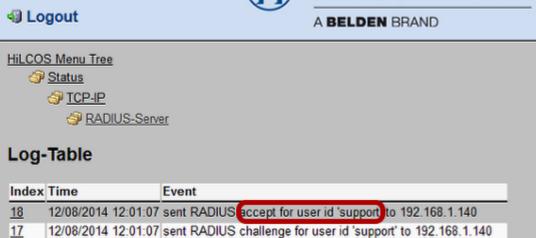
You can check it via the web interface

HiLCOS Menu Tree > Status > TCP-IP > RADIUS-Server > Access-Control

## **Check the authentication of clients**

#### **HiLCOS Menu Tree**





You can see the result of the authentication tries in the Log-Table available via the Web interface under

HiLCOS Menu Tree > Status > TCP-IP > RADIUS-Server > Log-Table.

More information can be available if if we use RADIUS Accounting (not described in this How-to).

#### 相关内容

- How to configure an Open BAT as an 802.1x supplicant
- How to configure an Open BAT as an 802.1x authenticator
- How to configure a Radius Profile on the WLC and include it in Logical settings