

How to configure a Radius Profile on the WLC and include it in Logical settings

- 2018-02-21 - BAT, WLC (HiLCOS)

Creating a profile on the WLC using the Wizard, we can select ""802.1x"" as authentication method to access a network.

Nevertheless the additional settings to authenticate the 802.1x clients on a radius server aren't configurable via the Wizard.

Few additional steps are required.

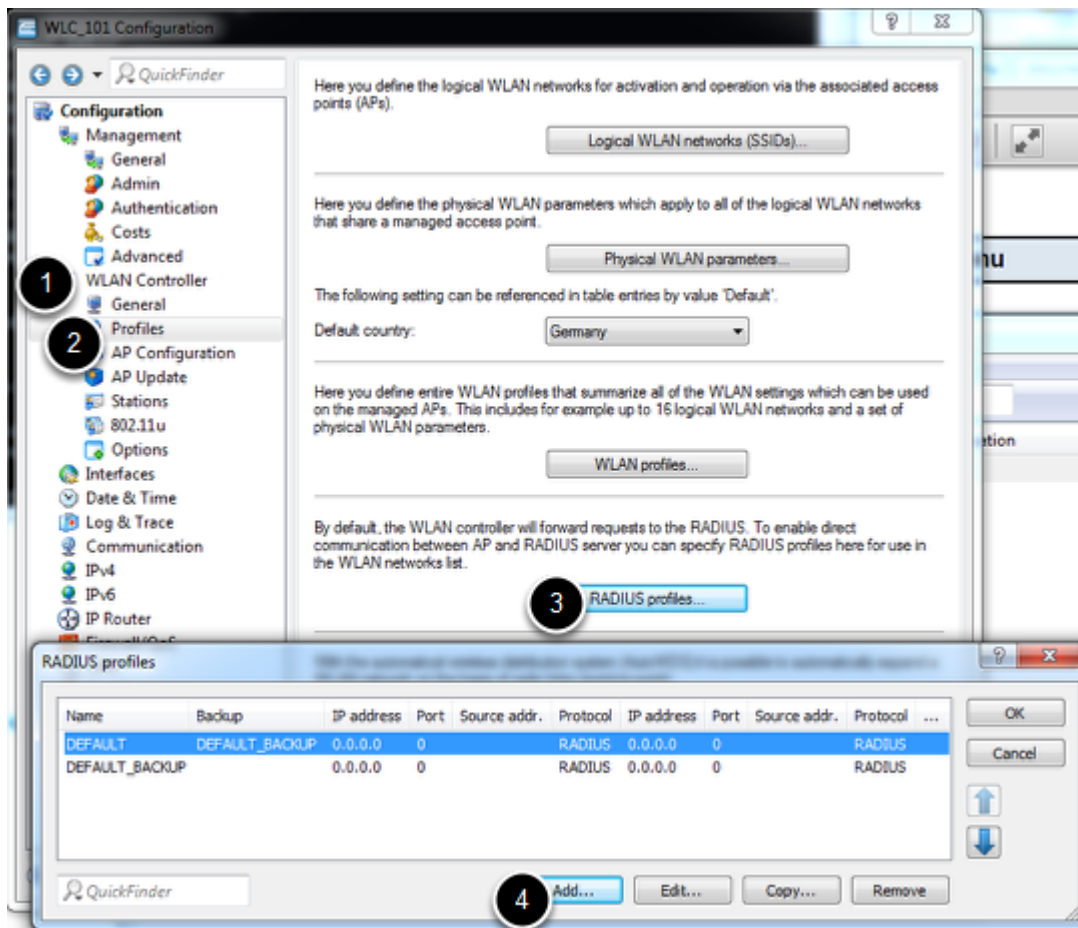
Create a profile on the WLC selecting 802.1x as authentication method



To create a profile on the WLC refer to the lesson "How to create a profile on a WLC and apply it on BAT Access Points".

In this lesson, Preshared Key is used as authentication method. Instead of that, when you reach the step "authentication method" select "802.1x" (see above).

Create a Radius Profile



When the Wizard is finished, from LANconfig add a radius profile on the WLC.

The RADIUS profile will later be "integrated" into logical settings (logical settings are part of a general profile).

When this profile will be applied on AP, the AP will act as authenticators and will use the RADIUS settings defined in the RADIUS profile.

From LANconfig main Window, double clic on the WLC or right clic > Configure
A new configuration Window specific for the WLC opens.

From this window selct:

Configuration > WLAN Controller > Profiles > RADIUS profiles > Add

Enter the RADIUS Server settings

The screenshot shows a 'RADIUS profiles - New Entry' dialog box with the following configuration:

- Name:** MY_RADIUS_SERVER (marked with 1)
- Backup profile:** (empty dropdown)
- Authentication server:**
 - IP address:** 192.168.1.101 (marked with 2)
 - Port:** 1.812 (marked with 3)
 - Secret:** support (marked with 4), with a 'Show' checkbox checked and a 'Generate password' button.
 - Source address:** (empty dropdown)
 - Protocol:** RADIUS
- Accounting server:**
 - IP address:** 192.168.1.101 (marked with 5)
 - Port:** 1.813 (marked with 6)
 - Secret:** support, with a 'Show' checkbox checked and a 'Generate password' button.
 - Source address:** (empty dropdown)
 - Protocol:** RADIUS

Buttons at the bottom include 'OK' and 'Cancel'.

1/ Give a name to the profile. In our example ""MY_RADIUS_SERVER""

2/ Enter the IP address of the RADIUS Server. The RADIUS server can be the controller itself.

In this case enter the IP address of the controller

3/ The port by default is 1812

4/ Enter here the shared secret. The shared secret is used by the authenticators to access the RADIUS server (it also has to be configured on the RADIUS server)

5/ Optionnally configure an accounting server

6/ 1813 is the port used by default

Edit the logical settings you want to apply the RADIUS profile to



Configuration > WLAN Controller > Profiles > Logical WLAN networks (SSIDs)

Select the Logical network you want to apply the RADIUS profile to (in our example ""SSID_MY_NETWORK"")

Select Edit

Add the RADIUS Profile into the settings

Logical WLAN networks (SSIDs) - Edit Entry

Logical WLAN network activated

Name: SSID_MY_NETWORK

Inheritance

Inherit from entry:

Network name (SSID): MY_NETWORK

Connect SSID to: LAN at AP

VLAN mode: Untagged

VLAN ID: 2

Encryption: 802.11i (WPA)-802.11i

Key 1/passphrase: Show

RADIUS profile: MY_RADIUS_SERV

Allowed frequency bands: 2.4/5 GHz

AP standalone time: 0 minutes

802.11u network profile:

OKC (Opportunistic Key Caching) activated

MAC check activated

Suppress SSID broadcast: No

RADIUS accounting activated

Allow data traffic between stations of this SSID

WPA version: WPA2

WPA1 session key type: TKIP

WPA2 session key type: AES

WPA2 key management: Standard

Basis rate: 2 Mbit/s

Client Bridge Support: No

TX bandwidth limit: 0 kbit/s

RX bandwidth limit: 0 kbit/s

Maximum count of clients: 0

Min. client signal strength: 0 %

Use long preamble for 802.11b

(U-)APSD / WMM powersave activated

Encrypt mgmt. frames: No

802.11n

Max. spatial streams: Auto

Allow short guard interval

Use frame aggregation

STBC (Space Time Block Coding) activated

LDPC (Low Density Parity Check) activated



That's it.

Applying the profile into the Access Points, radius profile will be taken in account by the APs which will become autenticators for the specified RADIUS server.

NB: If the profile was already existing with another Autentication method, modification of the Encryption can be done in this Window (select 802.1x as encryption method)

Check it

The screenshot shows a web browser window with two tabs: 'WLC_100 - Verbunden als a...' and 'AP_140 - Connected as ad...'. The address bar shows the URL '192.168.1.140/config/1/59/105?detail_1&CONFSID=3abee0fa3cc5950602d6877de4fbb4e8194c7a4f'. The left sidebar contains a navigation menu with categories like Setup Wizards, System information, Configuration, HiLCOS Menu Tree, File management, Extras, and HTTP-Session. The main content area is titled 'HiLCOS Menu Tree' and includes a 'Logout' button. Below this, there is a breadcrumb trail: 'HiLCOS Menu Tree > Status > WLAN-Management'. The primary content is a table titled 'RADIUS-Server-Profiles' with the following data:

RADIUS-Server-Profiles	
Name	MY_RADIUS_SERVER
Access-IP	192.168.1.101
Access-Port	1812
Access-Secret	*
Access-Loopback	
Access-Protocol	RADIUS
Account-IP	192.168.1.101
Account-Port	1813
Account-Secret	*
Account-Loopback	
Account-Protocol	RADIUS
Backup	



Connecting to the AP you can check via the web dialog that the RADIUS Profile is taken in account under:

HiLCOS Menu Tree > Status > WLAN Management > RADIUS-Server-Profiles

Related Content

- [How to use an Open BAT or WLC as a RADIUS server and set up user accounts](#)