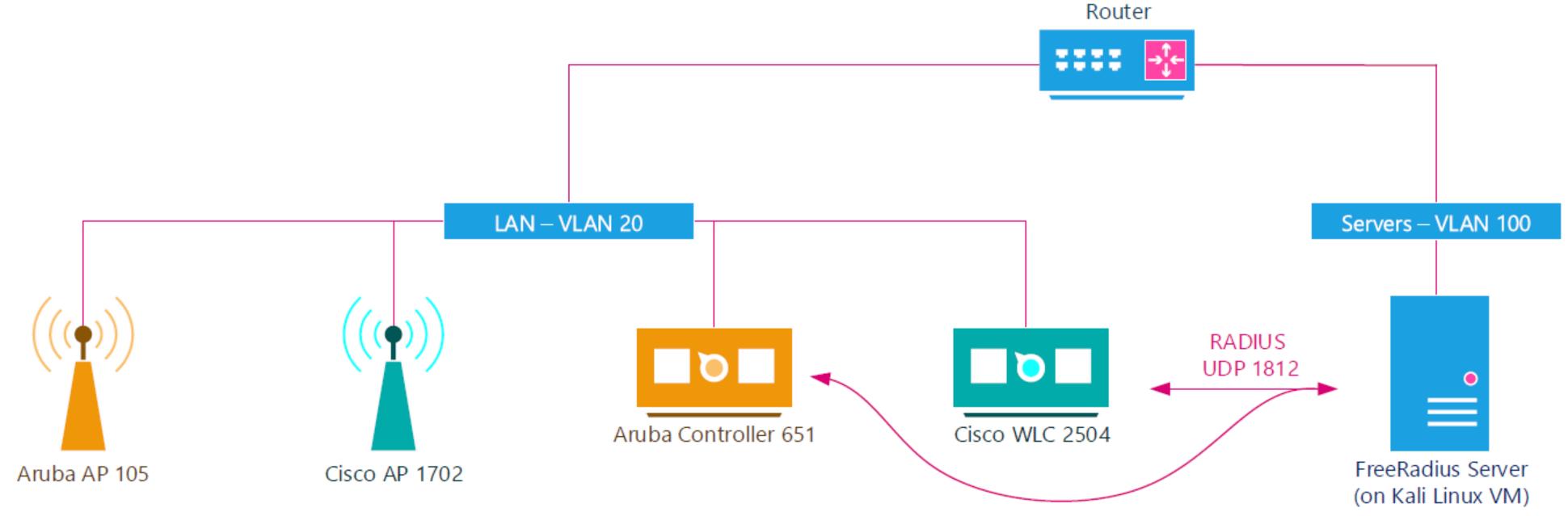
Setup FreeRADIUS on Kali Linux

Objective: use FreeRADIUS for 802.1X authentication in a Wi-Fi network infrastructure

Lab Setup

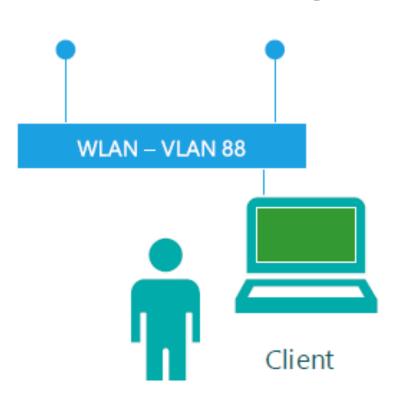


SSID: Aruba-SemFio-Ent

SSID: Cisco-SemFio-Ent

Security: WPA2-Enterprise

Authentication: 802.1X EAP-PEAP[EAP-MSCHAPv2]



Supplicant

Send authentication requests to the RADIUS Server (Authenticator)

RADIUS server for 802.1X authentications (AS)

Authentication Process



Let's get to work!

- 1. Install and setup FreeRADIUS on Kali Linux
- 2. Configure the 802.1X Wi-Fi Networks on the controllers
- 3. Test

1 - Install and Setup FreeRADIUS

- 1. Validate network interfaces on Kali Linux
- 2. Download and Install FreeRADIUS
- 3. Configure FreeRADIUS to use PEAP with the MSCHAPv2 inner method
- 4. Add the Wi-Fi controllers as RADIUS clients
- 5. Add users to the FreeRADIUS server database
- 6. Create a CA and Server Certificate
- 7. Startup the FreeRADIUS service

2 - Configure the 802.1X Wi-Fi Network on the Controllers

- 1. Add the FreeRADIUS server as a RADIUS server on the controllers
- 2. Create a new WLAN using WPA2-Enterprise with 802.1X authentication
- 3. Use the FreeRADIUS server as the authentication server
- 4. Enable the WLAN

3 - Test

- 1. Import the CA certificate onto the clients (MacOS 10.11.1 & Windows 8)
- 2. Connect to the new SSID
- 3. Use the users previously added to the FreeRADIUS user database
- 4. Voilà!

Some useful debug commands

- On the Aruba Controller (CLI)
 - configure terminal
 - logging level debugging user-debug MAC_ADDRESS
 - exit
 - show log user-debug all

- On the Cisco Controller (CLI)
 - debug client MAC_ADDRESS
 - debug aaa all enable
 - show debug

Review the tutorial on the blog www.semfionetworks.com/blog