



## Technical Guide

# Framed-IP-Address Feature

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## Revision

Firmware version	Supported Model	Date	Author	Remarks
V12.4.0 or later	EAP101, EAP102	29 <sup>th</sup> May 2023	Alex Tan	1 <sup>st</sup> revision
V12.4.0 or later	EAP101, EAP102	20 <sup>th</sup> June 2023	Corner Wang	2 <sup>nd</sup> revision
V12.4.0 or later	EAP101, EAP101	18 <sup>th</sup> July 2023	Alex Ho	3 <sup>rd</sup> revision
V12.4.1 or later	EAP101, EAP102	28 <sup>th</sup> July 2023	Alex Tan	Add description for firmware v12.4.0 and v12.4.1.

## Introduction

This feature is an enhancement to the RADIUS accounting functionality. It is ONLY supported on EAP101, EAP102 with firmware version V12.4.0 or later. Any firmware version prior to V12.4.0 will not contain this feature.

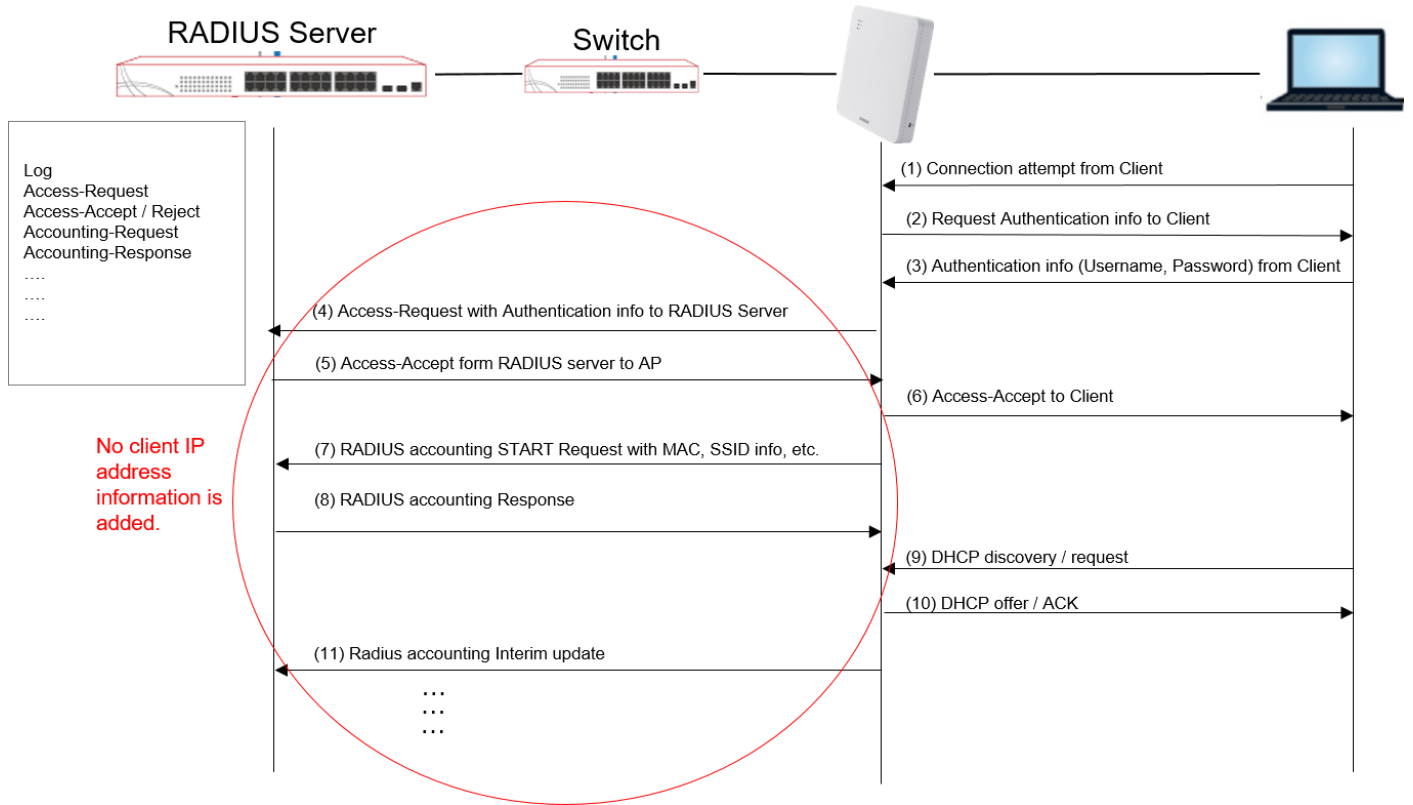
In previous RADIUS accounting implementation, the IP address of a supplicant or client is not included in the Accounting Start Request. This causes the RADIUS server not able to log the IP address of a supplicant.

This new feature called “Framed-IP-Address” will now include the IP address of the supplicant in the Accounting Start Request packet. The concept is to wait for the DHCP 4-way handshaking process to complete and the IP address of a supplicant can then be obtained. This feature is enabled by default in V12.4.0 and disabled in V12.4.1 or later.

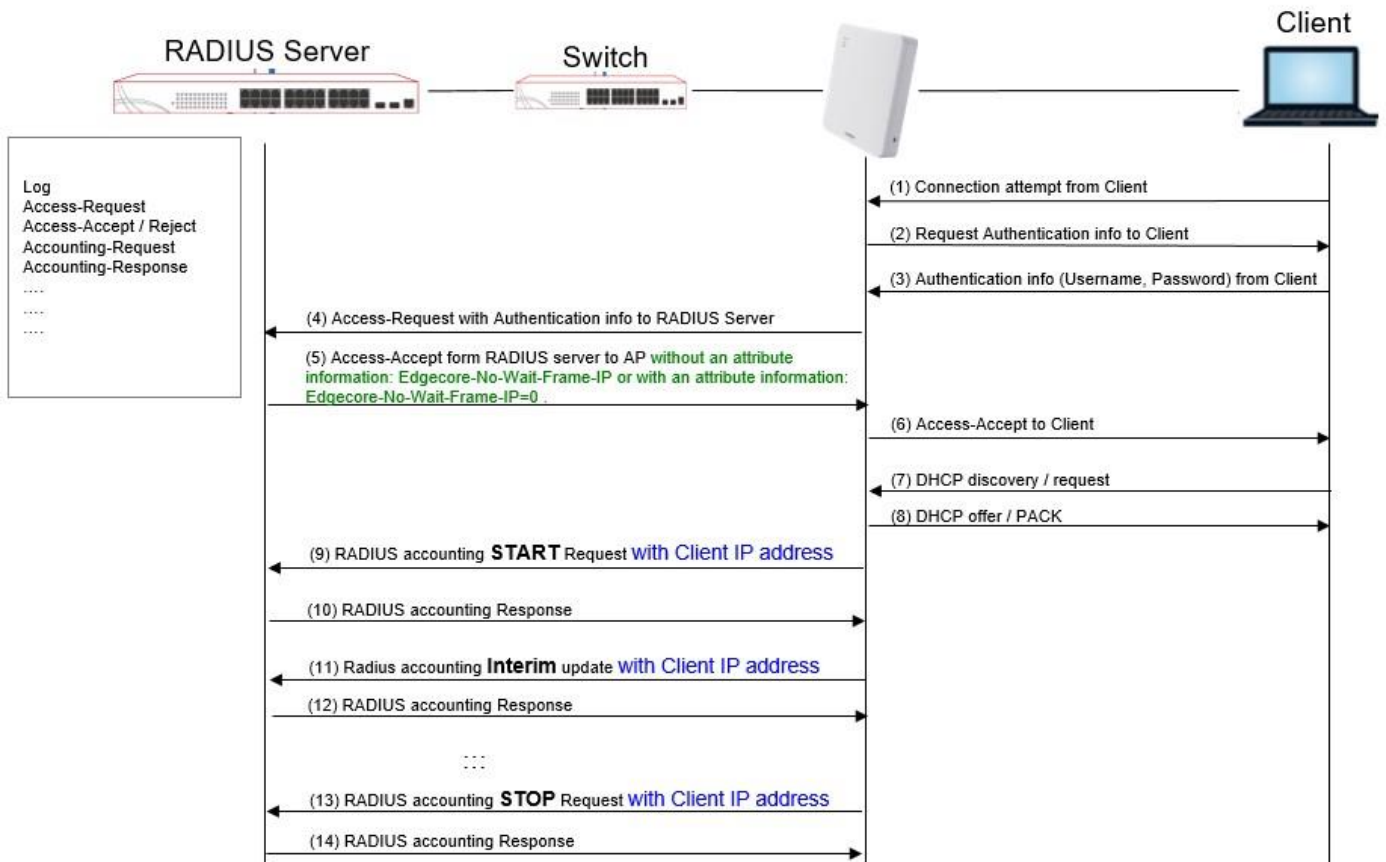
If using attribute to enable this feature, there will be no “Framed-IP-Address” in Accounting Start packet but will be in Interim Update and Accounting Stop packets.

# Flow Diagram

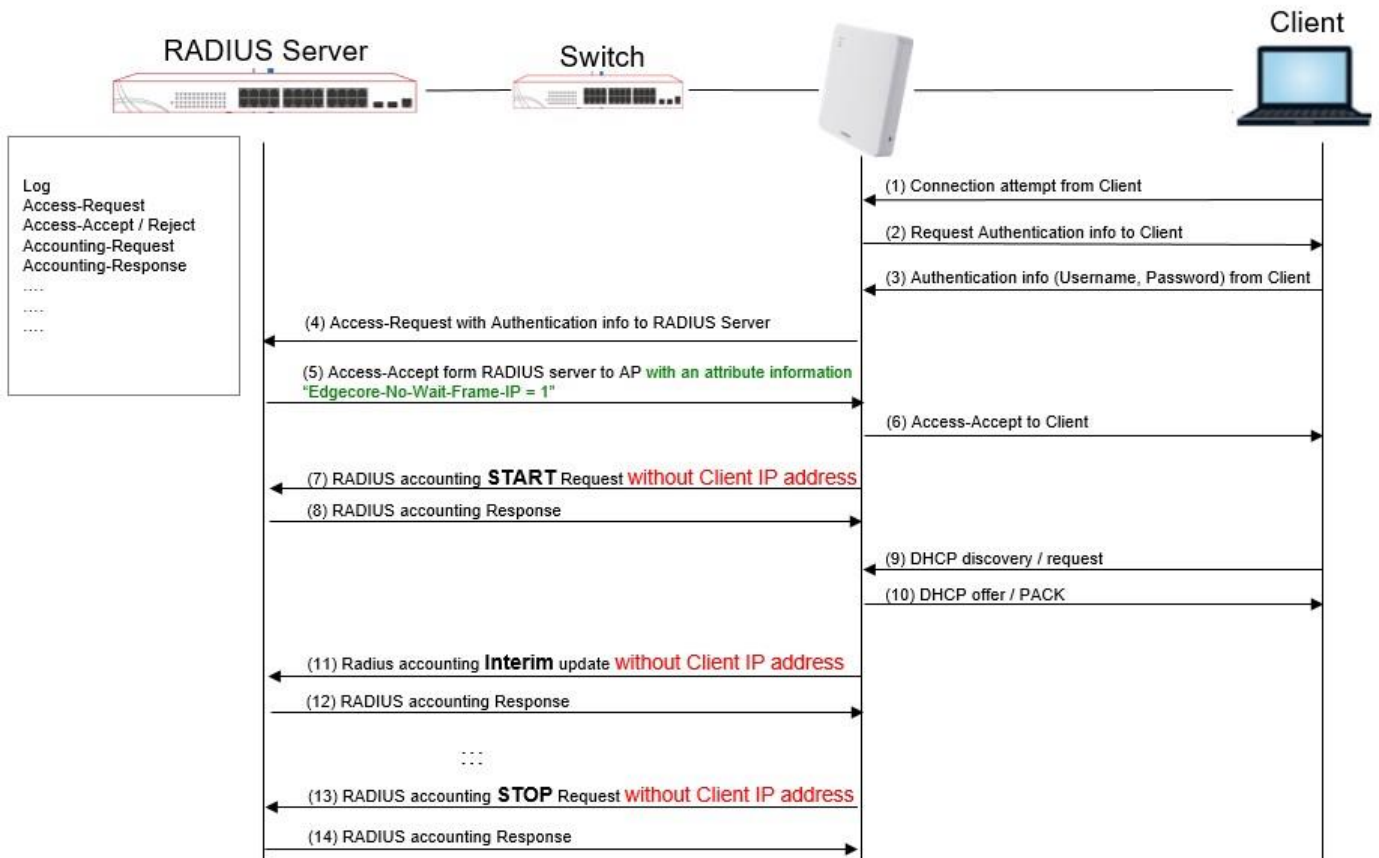
Original implementation (FW ver. 12.3.1 or before)



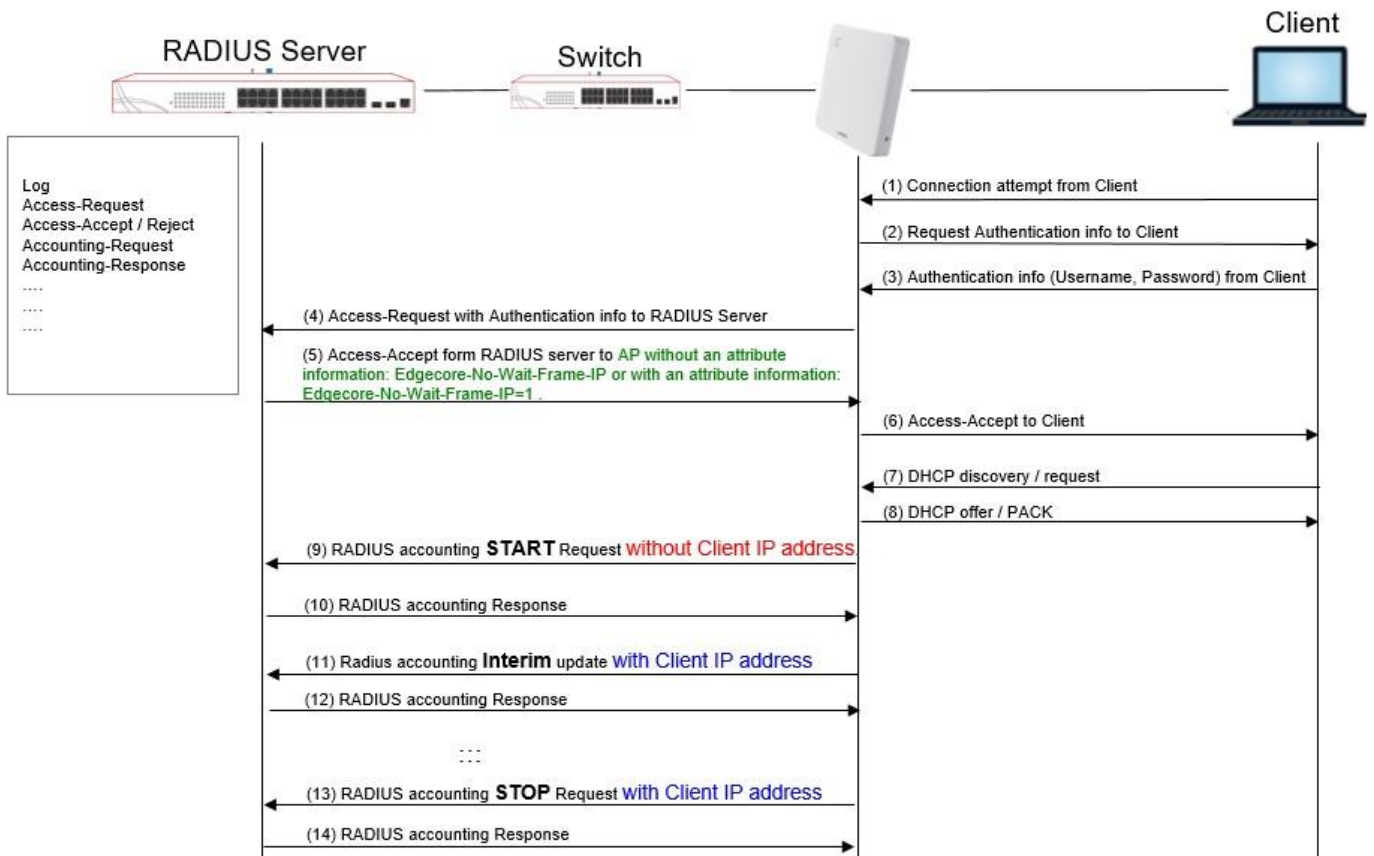
FW ver. 12.4.0 - Default Setting



FW ver. 12.4.0 - Behavior can be changed as follows by attribute information

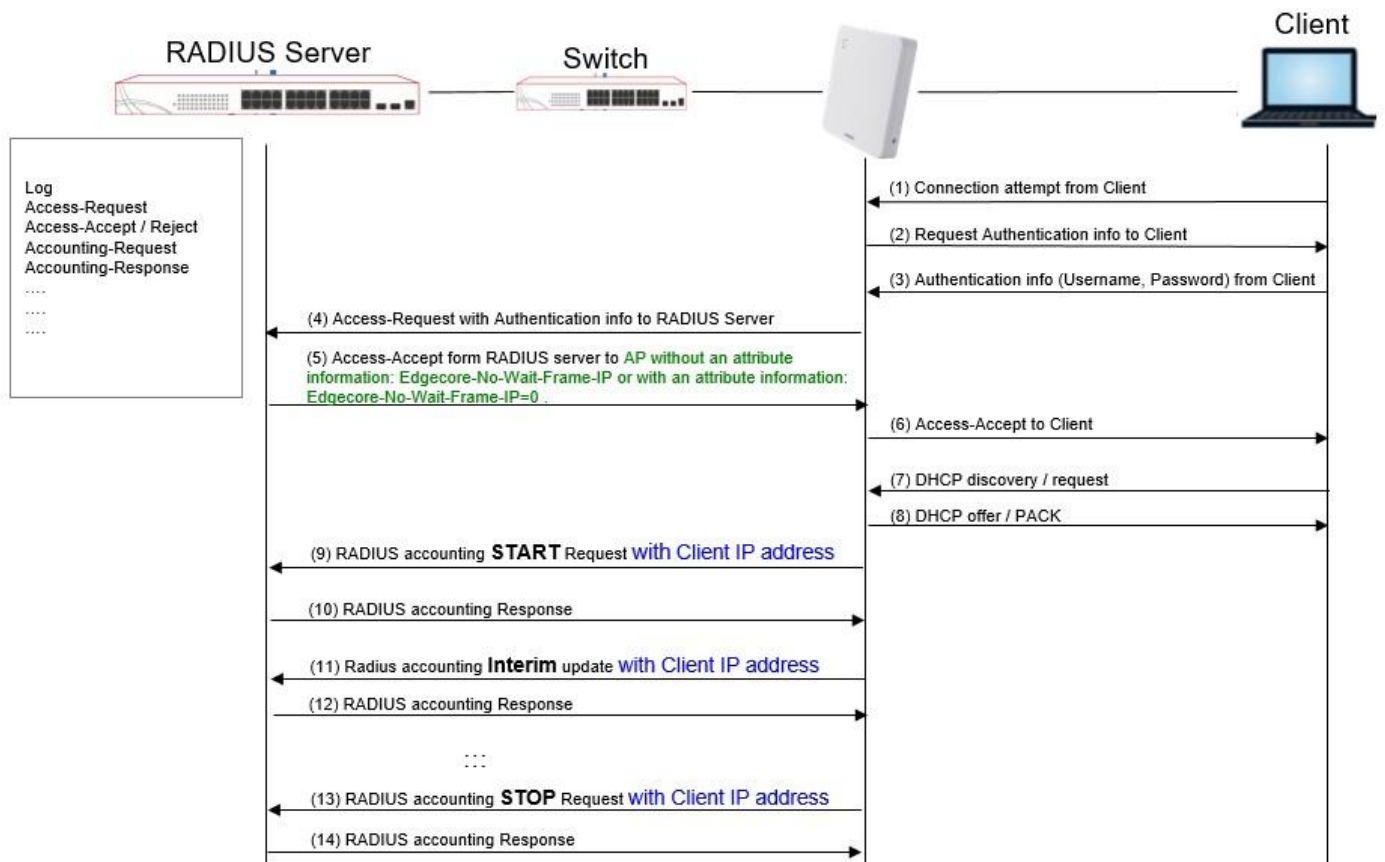


FW ver. 12.4.1 or newer - Default Setting





FW ver. 12.4.1 or newer - Behavior can be changed as follows by attribute information



# Configuration

## Default Setting

Feature	Ver 12.4.0	Ver 12.4.1 or newer
Client IP address is included into RADIUS Accounting Start	Default Enabled (Disable through attribute)	Default Disabled (Enable through attribute)
Client IP address is included into RADIUS Accounting Interim	Always Enabled	Always Enabled
Client IP address is included into RADIUS Accounting Stop	Always Enabled	Always Enabled

**\*ONLY IPv4 is supported.**

## Enabling and Disabling

1. Enable SSH service and login to the device.
2. Create a dictionary file such as “dictionary.zvendor”.

```
dictionary.xedia  
dictionary.xylan  
dictionary.yubico  
dictionary.zeus  
dictionary.zte  
dictionary.zvendor  
dictionary.zyxel
```

3. Edit the dictionary file to the format below.

```
VENDOR      Edgecore      259  
ATTRIBUTE   Edgecore-No-Wait-Frame-IP      8      integer      Edgecore
```

4. Add the newly created dictionary file to the RADIUS main dictionary file and save.

```

$INCLUDE dictionary.xedia
$INCLUDE dictionary.xylan
$INCLUDE dictionary.yubico
$INCLUDE dictionary.zeus
$INCLUDE dictionary.zte
$INCLUDE dictionary.zyxel
$INCLUDE dictionary.zvendor

#
#   And finally the server internal attributes.
#   These are attributes which NEVER go into a RADIUS packet.
#
$INCLUDE dictionary.freeradius.internal

```

5. Create an account with the attribute as below.

```

test Cleartext-Password := "test"

test1   Cleartext-Password := "test1"
        Edgecore-No-Wait-Frame-IP = 1

testing Cleartext-Password := "testing"
        Edgecore-No-Wait-Frame-IP = 0

```

Explanation:

1. Using account "test":
  - In v12.4.0, Accounting Start Request packet will be sent by the AP until Frame-IP-Address obtains client IP address, i.e. client is not able to access the network before the process is finished
  - In v12.4.1, Accounting Start Request packet will be sent by the AP with no Frame-IP-Address
2. Using account "test1" (Framed-IP-Address enabled):
  - Accounting Start Request packet will be sent by the AP with no Frame-IP-Address
3. Using account "testing" (Framed-IP-Address disabled):
  - Accounting Start Request packet will be sent by the AP until Frame-IP-Address obtains client IP address, i.e. client is not able to access the network before the process is finished