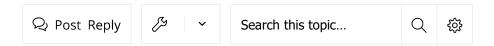
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# Static IP address using esp-netif



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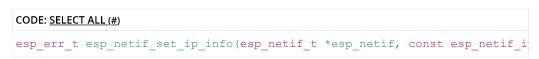
#### Static IP address using esp-netif (#p56803)

**Q** by **Foxtrot813** » Wed Mar 11, 2020 11:39 pm

Hi , I've been trying to make the ESP32 IP address static (ie. 192.168.15.12), but I can't make sense of the documentation.

The getting started wifi station example unfortunately uses DHCP...

I think I should use this function



below the

```
CODE: SELECT ALL (#)
esp_netif_create_default_wifi_sta()
```

but the ESP-IDF Programming Guide isn't clear on how should I implement neither esp\_netif nor ip\_info. I'm not even sure if this function alone would make the IP static.

Any help, please? Thanks!

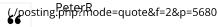
(/posting phi mode quote&f=2&p=5680

Foxtrot813

Posts: 8 Joined: Sun Apr 08, 2018 6:37 am

## Re: Static IP address using esp-netif (#p56804)

**Q** by **PeterR** » Thu Mar 12, 2020 12:37 am



Posts: 493

Joined: Mon Jun 04, 2018

2:47 pm

Not entirely sure what you mean. You want a static IP address on a station? Don't you want the station to be a DHCP client?

Anyway the documentation is not easy to understand.

Have a look at the difference between:

ESP\_NETIF\_DEFAULT\_ETH();

and the wifi AP default initialiser & in particular .flags. .flags determines DHCP, static, auto etc.

So create a const structure close to the ESP\_NETIF\_DEFAULT\_ETH settings (which is DHCP client) before you:

```
code: Select All(#)

esp_netif_config_t cfg = MY_NETIF;
eth_netif = esp_netif_new(&cfg);
```

Sorry not to be more explicit but short on time.

### Re: Static IP address using esp-netif (#p56806)

**Q** by **Foxtrot813** » Thu Mar 12, 2020 1:22 am

Sorry, I mean I want to ESP32 have a fixed IP address in station mode.

I'm developing an Android application to communicate with the ESP32 with TCP sockets, thus I need to know the ESP32 IP address to establish a connection.

I remember that with ESP8266 and Arduino you could achieve this:

```
CODE: SELECT ALL (#)

IPAddress ip(192, 168, 15, 11);

IPAddress gateway(192, 168, 15, 1);

IPAddress subnet(255, 255, 255, 0);

WiFi.begin(ssid, password);

WiFi.config(ip, gateway, subnet);
```

So I'm trying to do a similar thing with ESP32 and IDF, but seems way too hard to figure out.

#### Re: Static IP address using esp-netif (#p56825)

Q by **Foxtrot813** » Thu Mar 12, 2020 9:34 am

Ok, now I got it working!



Foxtrot813

Posts: 8

Joined: Sun Apr 08, 2018

6:37 am



I've done this

I'll paste the full initialization code below, hope it helps someone (the original code was generated with the getting started wifi station)

```
CODE: SELECT ALL(#)

void wifi_init_sta(void)
{
    s_wifi_event_group = xEventGroupCreate();

    ESP_ERROR_CHECK(esp_netif_init());

    ESP_ERROR_CHECK(esp_event_loop_create_default());

    esp_netif_t *my_sta = esp_netif_create_default_wifi_sta();

    esp_netif_dhcpc_stop(my_sta);

    esp_netif_ip_info_t ip_info;
```

Foxtrot813

Posts: 8 Joined: Sun Apr 08, 2018 6:37 am

## Re: Static IP address using esp-netif (#p56827)

**Q** by **PeterR** » Thu Mar 12, 2020 10:45 am

C/posting PetreinRode=quote&f=2&p=5682

Posts: 493

Joined: Mon Jun 04, 2018

2:47 pm

That works as well. I forgot that .flags is a capability description and so you can simply stop DHCP.

ESP has mDNS which you can use to tell others about your IP address. This would allow you to remain a DHCP client.



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