

How To Connect Wi-Fi On Kali Linux (GUI, Command, Hidden, ...)

 infosecscout.com/wifi-configuration-kali-linux

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Connecting to a Wi-Fi network on Kali Linux is often an important step, especially if you keep the Ethernet connection free for other purposes (or don't have other choice). Anyway, whether you try to connect to the Wi-Fi during the installation, via the GUI or in command line, this guide will help you to get connected quickly.

Kali Linux can be connected to a Wi-Fi network by using the SSID and password from one of these interfaces: during the installation, from the desktop interface or by using command lines in a terminal.

Let's see how to do this in each situation.

Note: I'm explaining here how to connect to your own wireless network, not how to hack another Wi-Fi network. You need the SSID and password before going further, whatever the option you choose.

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Kali Linux: Wi-Fi connection during the system installation

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A network connection is mandatory to install Kali Linux on a computer. If you don't use a network cable, a Wi-Fi network needs to be configured during the installation.

Wireless card not detected?

Kali Linux is based on Debian, so most wireless adapters should work with it. If you are not using something too new or exotic, your wireless card will be detected and can be used directly.

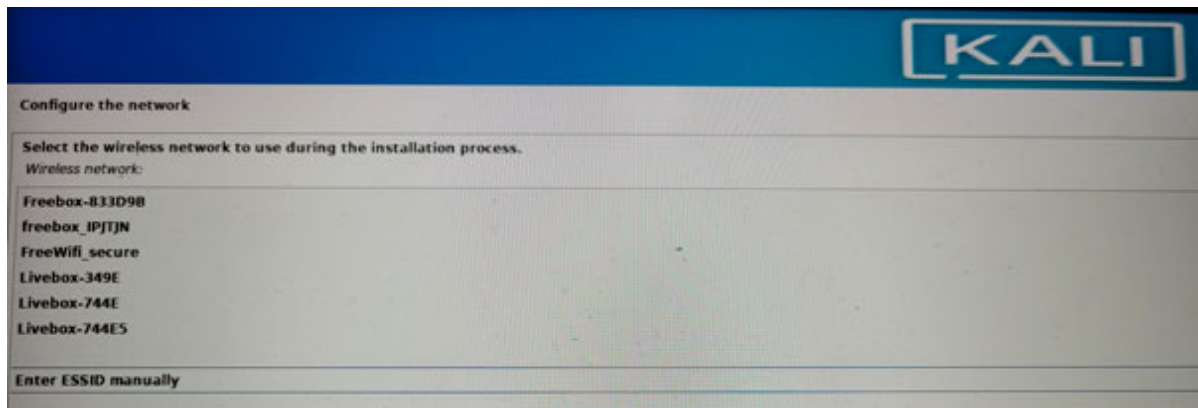
If you aren't lucky, you may need to install an additional driver to make it work. In this case, I would recommend completing the installation with a RJ45 cable plugged to your network, and fix the wireless connection later. It will be easier from the full interface rather than doing it during the installation.

Wi-Fi configuration during Kali Linux installation

If you don't have any network cable connected, a Wi-Fi connection will be asked during the installation of Kali Linux. As most packages are downloaded from the Internet servers, a connection is mandatory.

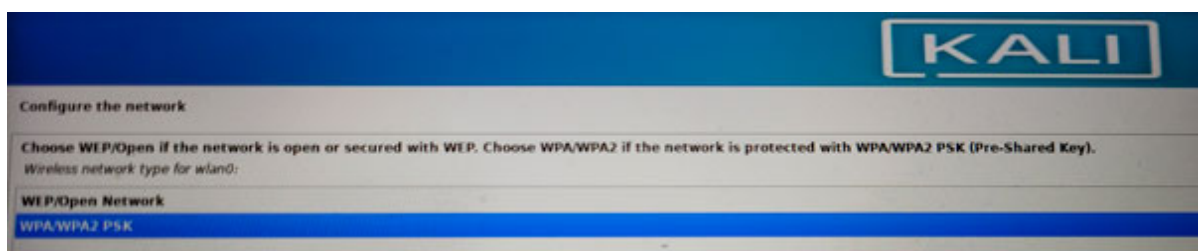
Here is how to connect to a Wi-Fi network during the installation:

- Start the installation by configure your locales (localization, language, keyboard layout, etc.).
- The wizard will then detect your network configuration, and ask for a Wi-Fi network:



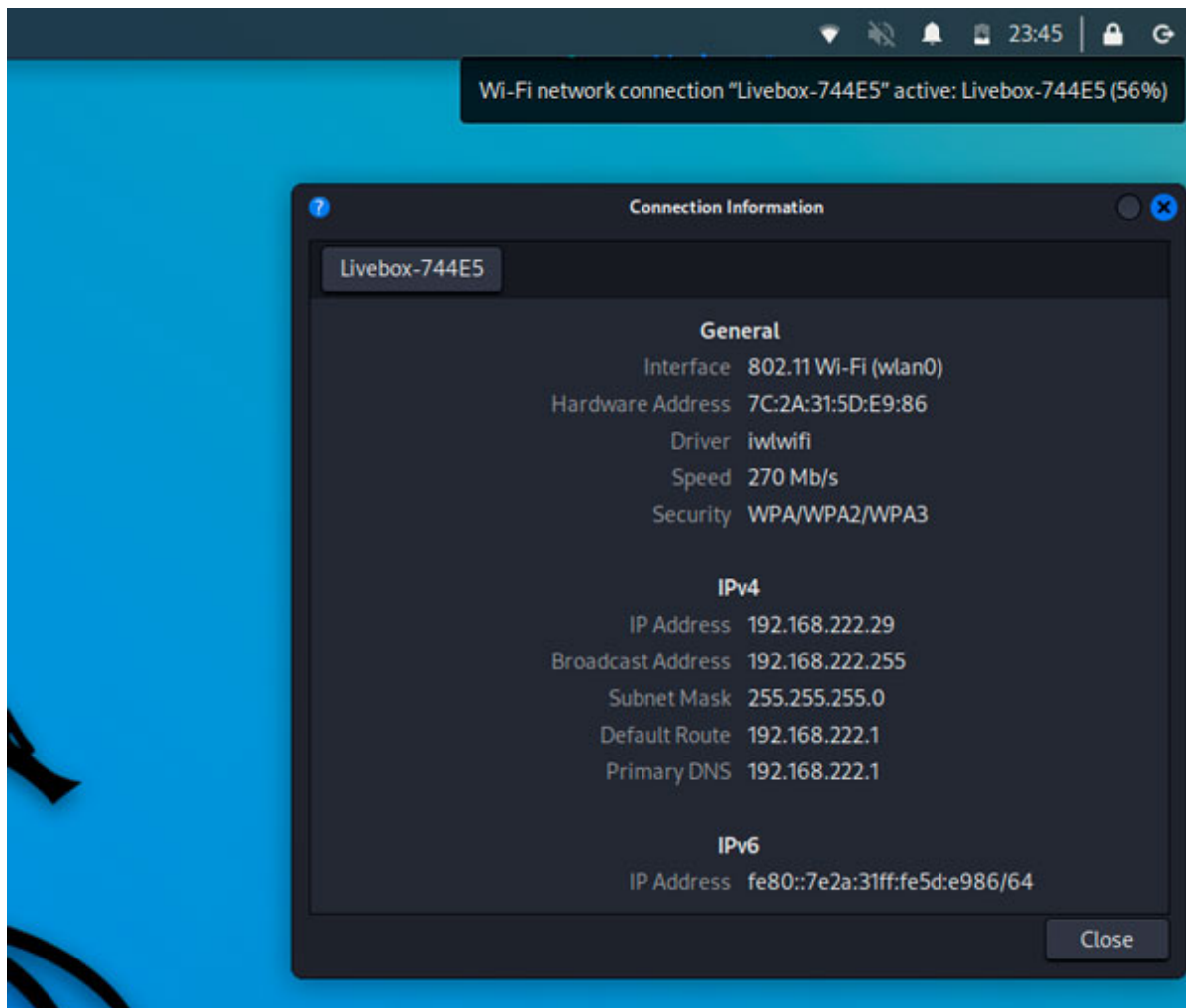
You can pick one in the list, or choose “Enter ESSID manually” if your Wi-Fi network is hidden or not displayed there.

- You'll then have the options to configure it, mostly choose the security options and type the password:



- If everything goes as expected, you'll be connected to your Wi-Fi network, and the installer will use it to download packages and updates from the Kali Linux servers.

- Once the system installed, you'll be automatically connected to the same network, nothing more to do after that:



Connect to Wi-Fi via the desktop interface on Kali Linux

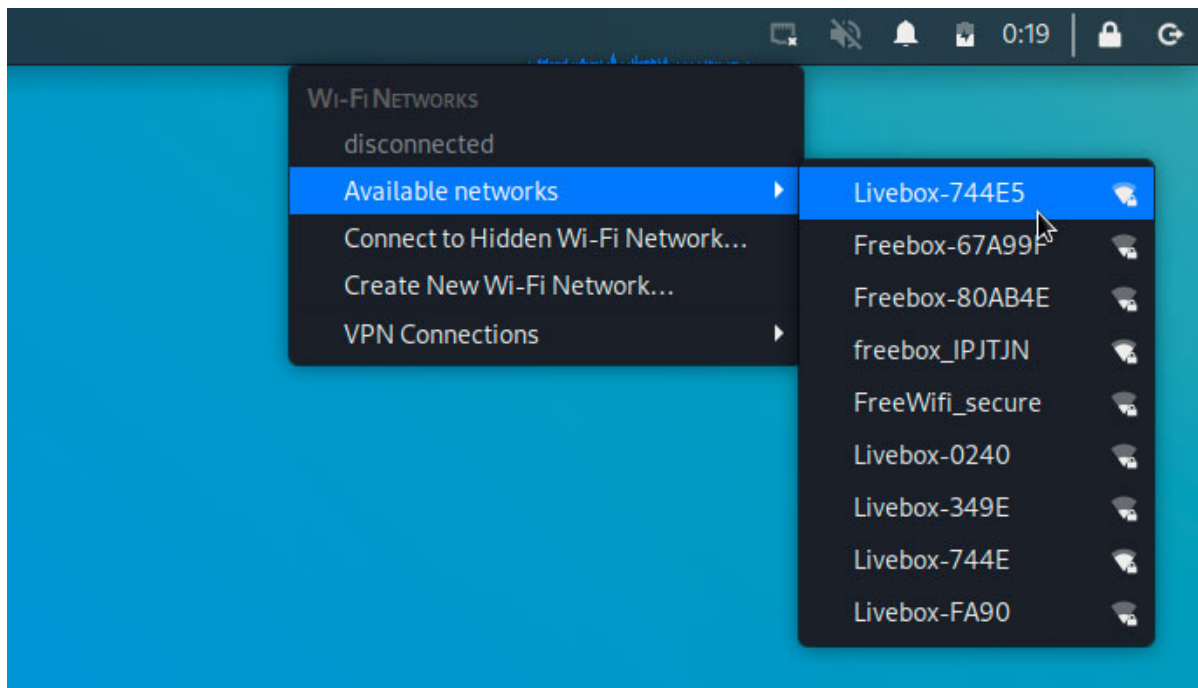
The easiest way to connect to a Wi-Fi network on Kali Linux is to use the desktop interface after the installation. XFCE includes various tools and shortcuts to do it quickly and easily.

Quick connection from the top bar

If your wireless adapter is detected, you can quickly connect to your Wi-Fi network by clicking on the network icon in the top panel:

- **Click on the network icon in the top-right corner.**
It should be a “disconnected” network icon if you don’t have any network configured, or the “connected” alternative if you only have the RJ45 configuration done.

- When you click on it, you'll get the option to **choose a network, or connect to a hidden network manually**:



- **Type your password**, and you'll be connected to it a few seconds later.

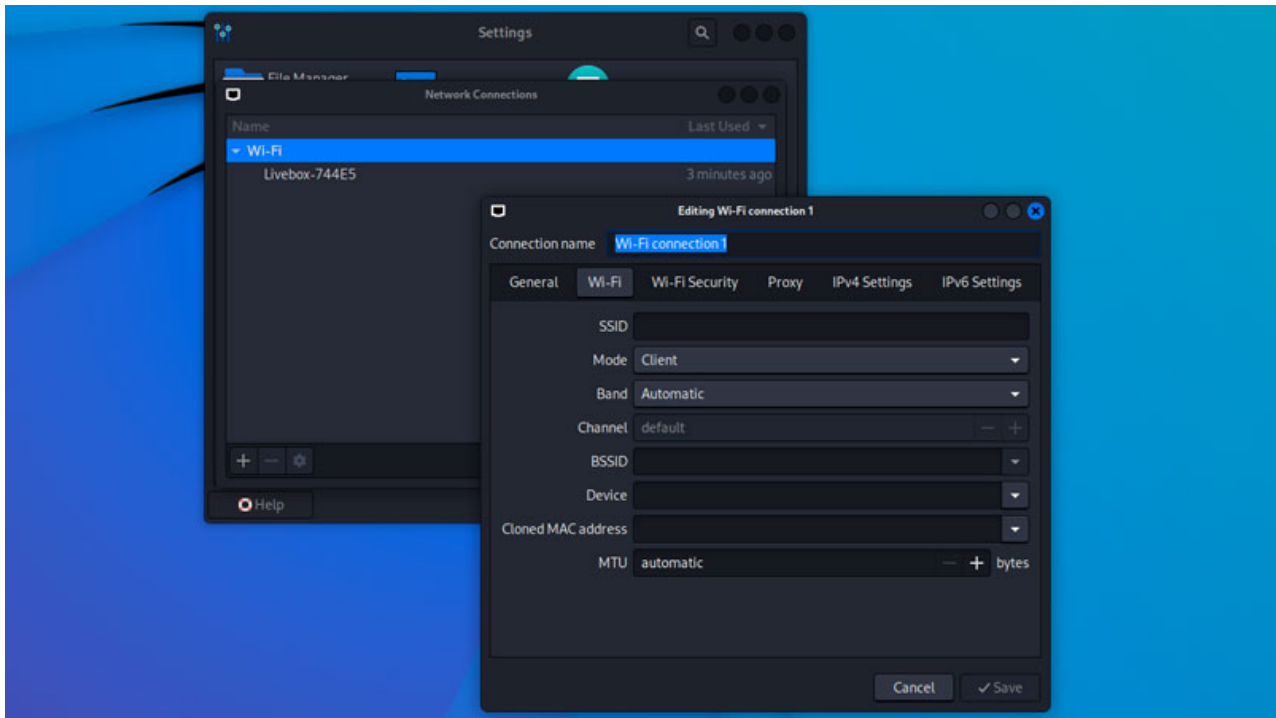
That's it, in most cases it shouldn't be that complicated.

I understand it might be new for you if you have no experience with Linux, but it's not different from configuring it on other Linux distributions, the interface is really intuitive.

Advanced settings

If your Wi-Fi setup requires more advanced options, you can open the system settings from the main menu and go to the "Advanced Network Configuration" tool to get more options.

It looks like that:



From there, you can either edit an existing configuration, or create a new one, with all the advanced options you might need (channel, MAC address, security, proxy, IP configuration, etc.).

For example, if there is no DHCP on your network, you will need this tool to set your IP address, gateway and DNS server.

Install a wireless driver

As explained earlier, even if Kali Linux comes with the most common wireless drivers, you may have a situation where your hardware is not detected, and you can't connect directly to a Wi-Fi network. In this case, you'll need to download and install the driver manually before you can use the Wi-Fi.

A few steps are involved, so I recommend watching this video to understand the idea:

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Obviously, it will be slightly different depending on your Wi-Fi adapter manufacturer, but I hope it will help you to understand the procedure, so you can then do your research for your specific needs.

Using the command line to connect to a Wi-Fi network on Kali Linux

If you don't have other options, it's still possible to connect to a Wi-Fi network from a terminal on Kali Linux. Just expect to be a little more challenging, but it's doable by following these steps:

- First, make sure your Wi-Fi interface is detected, and take note of its name:

`iw dev`

You'll get something like that:

```
(pat@infosec)-[~]
$ iw dev
phy#0
    Unnamed/non-netdev interface
        wdev 0x2
        addr 7c:2a:31:5d:e9:86
        type P2P-device
        txpower 0.00 dBm
    Interface wlan0
        ifindex 2
        wdev 0x1
        addr ae:c1:63:92:1c:df
        type managed
```

In most cases, the interface's name will be "wlan0".

- You can then do a scan to find all the SSID available:

```
sudo iw wlan0 scan
```

You can use grep to filter the results and display only the networks names:

```
sudo iw wlan0 scan | grep SSID
```

```
(pat@infosec)-[~]
$ sudo iw wlan0 scan | grep SSID
SSID: Livebox-744E5
SSID: Freebox-67A99F
    * SSID List
SSID: Livebox-349E
SSID: Livebox-744E
SSID: Livebox-349E
SSID: freebox_IPJTJN
    * SSID List
SSID: freebox_IPJTJN
    * SSID List
```

- We'll now generate a configuration file, with the SSID we want to use and the corresponding password:

```
sudo su
```

```
wpa_passphrase <SSID> >> /etc/wpa_supplicant.conf
```

Type the Wi-Fi password when asked for it, it will create the wpa_supplicant configuration file for you.

It looks like sudo doesn't work for this command, so I used "sudo su" to switch to the administrator account.

You can then get back to the normal user with:

```
exit
```

- The last step is to connect to your Wi-Fi network with wpa_supplicant:

```
wpa_supplicant -B -i wlan0 -c /etc/wpa_supplicant.conf
```

If there is any issue with your configuration, you'll get the error directly in the terminal.

You can remove the "-B" option (run in background) to see all the details, and the next attempts. It will be held to understand and debug any misconfiguration at this point.

Whatever the option you chose from this tutorial, you should now be connected to your Wi-Fi network, and can now check my other tutorials about Kali Linux on this website :-). Here are a few suggestions:

- [How To Remote Access Kali Linux](#)
- [Getting Started With John The Ripper On Kali Linux](#)
- [How To Easily Change Hostname On Kali Linux](#)

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