

# Scan LAN en CMD

## Scan Network for IP Addresses

```
Interface: 192.168.1.41 --- 0x18
Internet Address      Physical Address      Type
192.168.1.1          b8-46-fc-7c-b0-50    dynamic
192.168.1.25         00-1b-a9-58-04-4e    dynamic
192.168.1.33         00-18-f3-23-50-d6    dynamic
192.168.1.36         0c-8f-ff-4c-92-c6    dynamic
192.168.1.37         60-30-d4-76-b8-c8    dynamic
192.168.1.40         b4-99-ba-de-66-90    dynamic
192.168.1.200        4c-9e-ff-c0-67-bc    dynamic
224.0.0.2           01-00-5e-00-00-02    static
224.0.0.22          01-00-5e-00-00-16    static
224.0.0.251         01-00-5e-00-00-fb    static
224.0.0.252         01-00-5e-00-00-fc    static
239.0.2.2           01-00-5e-00-02-02    static
239.0.2.30          01-00-5e-00-02-1e    static
239.0.2.129         01-00-5e-00-02-81    static
239.0.2.153         01-00-5e-00-02-99    static
239.0.5.185         01-00-5e-00-05-b9    static
239.255.255.250     01-00-5e-7f-ff-fa    static
```

Scanning for IP address lets you have better control over your network.

With 1-2 commands, you can quickly map out the devices in your network and the IP addresses that they are using.

But to understand how to scan a network, first, you need to understand how are IP addresses assigned.

Follow these four simple steps to scan your network for IP addresses in use:

1. Open a Command Prompt window.
2. On Windows or macOS type **ipconfig** or on Linux type **ifconfig**. Press return. Note down the subnet mask, the default gateway, and your own computer's IPv4 address.
3. Enter the command **arp -a** to get a list of all other IP addresses active on your network.
4. Enter the command **ping <IP\_address>** giving any of the addresses returned by ARP in order to test the response times to that node - don't include the angle brackets that are shown in that example.

## DHCP (Assigning IPs Dynamically)

An automated process in networking, called DHCP (Dynamic Host Configuration Protocol), assigns IP dynamic addresses to hosts as soon as they enter the network. In a home or small network, the DHCP server is usually a part of the router. When you come into the network, the router will look for an available IP address in its pool and assign it to you, so that your device can communicate with others without any conflict.

Dynamic allocation of IP addresses is a great advantage for both end-users and network admins. But sometimes you would need to have some control in order to manage and troubleshoot your network more efficiently.

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