ZWART APPS
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NETWORKING FOR BEGINNERS
Quick guide



The essential concepts to understand how the internet works and build a solid foundation for your **cybersecurity** journey.

1 IP
IP

Identifies devices on a network.

2 DNS
Translates domains into IP addresses.

`google.com` ↓ `142.250.184.14`

3 Ports
Communication channels:
80, 443, 22

80	HTTP (web)
443	HTTPS (secure)
22	SSH (remote)

4 TCP
Reliable and ordered.

1 → 2 → 3

Data arrives in the same order it was sent.

5 UDP
Faster, no confirmation.

Data is sent without waiting for a response. Ideal for streaming, video calls and games.

Useful commands

```
ip a                    # Show your network configuration
ping 8.8.8.8            # Test connectivity
nslookup google.com     # Resolve a domain to an IP address
traceroute 8.8.8.8      # See the route to a destination
ss -tuln                # Show listening ports
```

IP address types

Private
192.168.x.x
Used in local networks (e.g. home, office).

Public
Visible on the internet
Assigned by your Internet Service Provider (ISP).