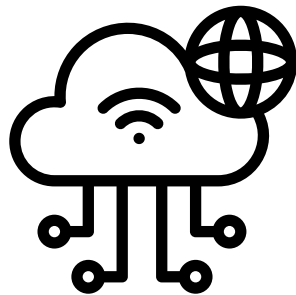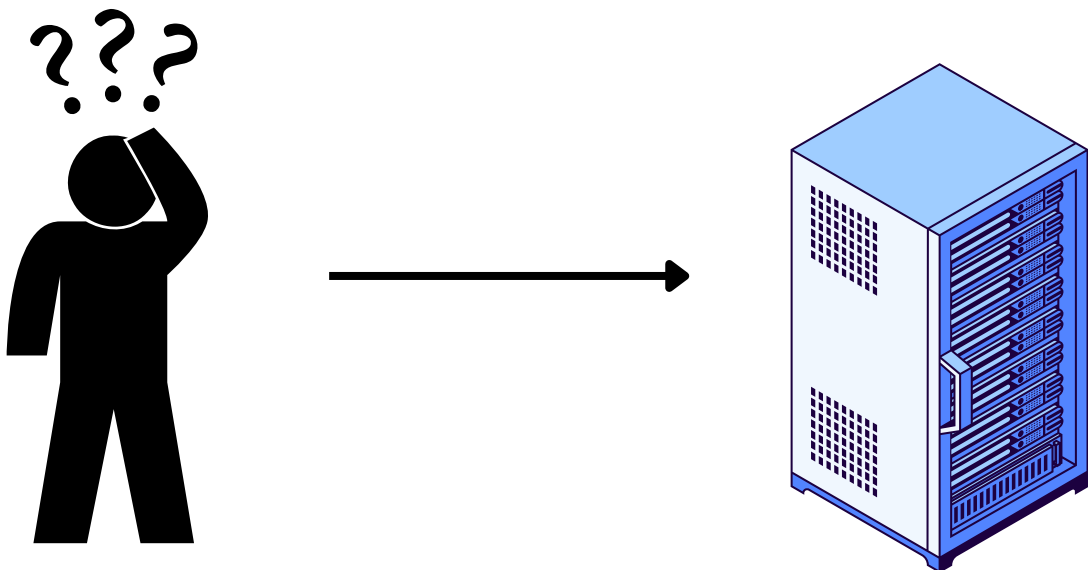BY MAYA MNAIZEL

# DNS CHEAT SHEET

# DNS

## Domain Name System

A system that translates Human readable domain names (example.com) into IP addresses (192.168.1.1)
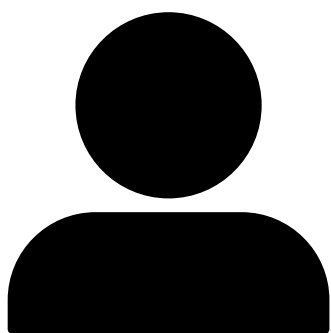
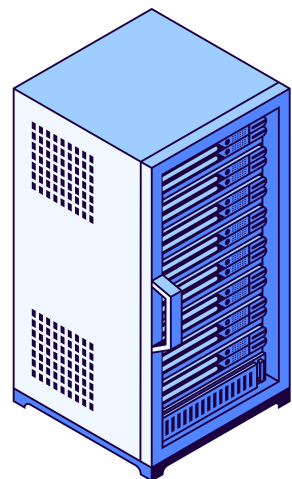How to communicate to a server?
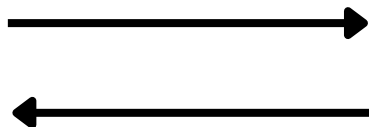
By Maya Mnaizel

# DNS

Traditionally users did not need to know the IP address of a server so they can communicate with it, instead various methods were created to hide the complexity of dealing with IPs

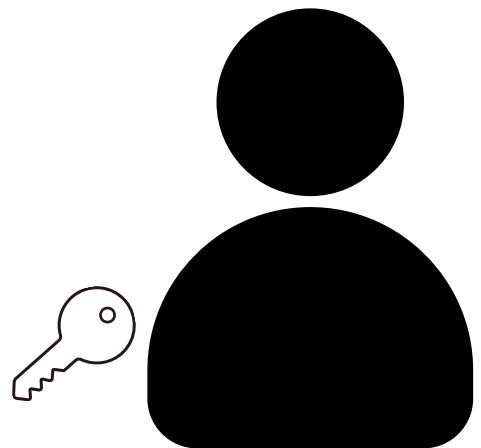EX: URL, DHCP, NAT, DNS

URL, DHCP, ..

By Maya Mnaizel

# DNS

There are still some scenarios where knowing an IP address is necessary or useful, such as for system administration, debugging, or accessing servers on a local network.

By Maya Mnaizel

# DNS

## DNS records

- A Record - Address Protocol
- AAAA Record - IPv6 Address Protocol
- CNAME Record - Canonical Name Record
- Alias Record
- MX Record - Mail Exchanger Record
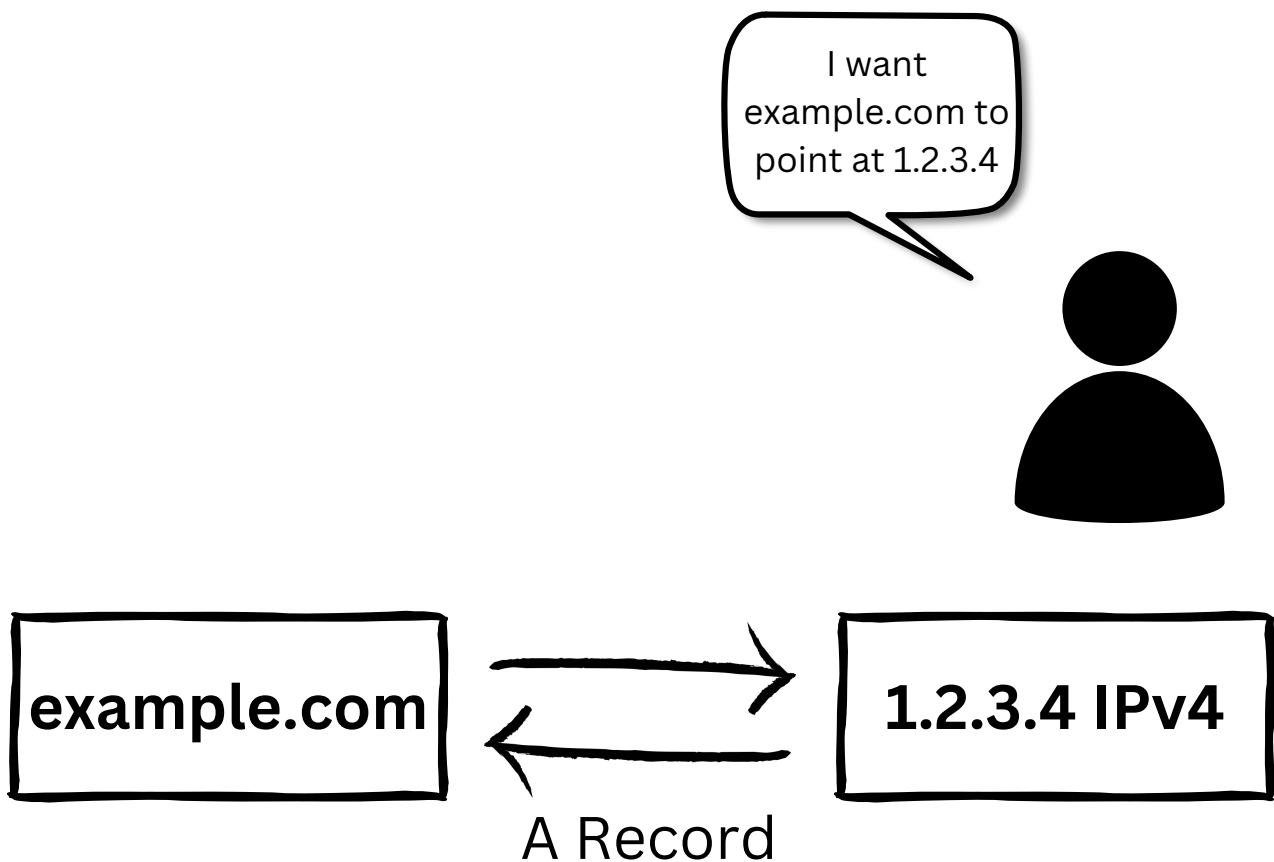- TXT Record - Text Records
- NS - Name Server Record

By Maya Mnaizel

# DNS

## A record:

- Purpose: used to map a domain name to an IPv4 address (32 bits)

IPv4 > 32 bits > in decimal
192.168.1.1

I want example.com to point at 1.2.3.4

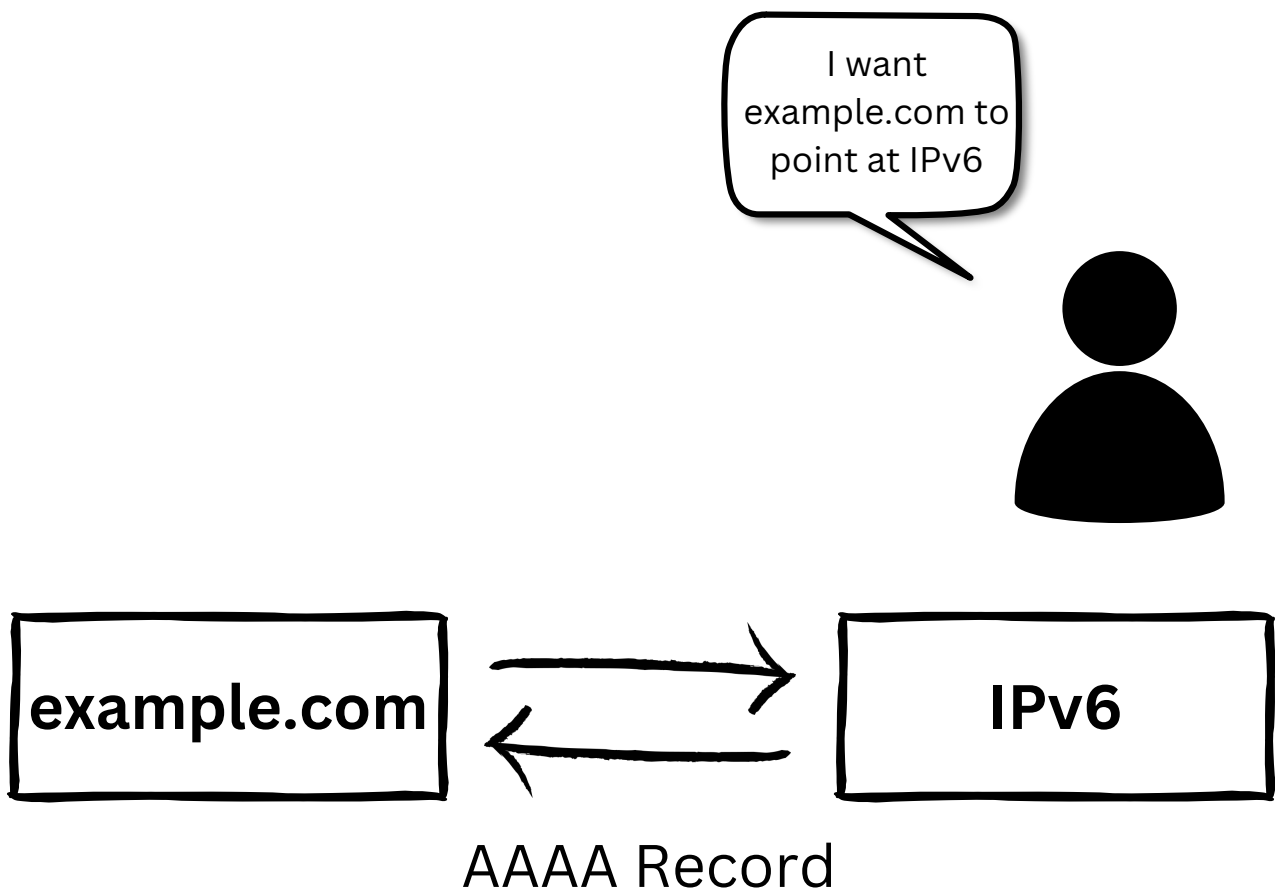**example.com** → **1.2.3.4 IPv4**

A Record

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# DNS

## AAAA record:

- Purpose: used to map a domain name to an IPv6 address (128 bits)

IPv6 > 128 bits > in hexadecimal
2001:0db8:85a3:0000:0000:8a2e:0370:7334

I want example.com to point at IPv6

| example.com | IPv6 |

AAAA Record

By Maya Mnaizel
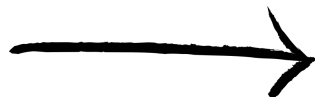
# DNS

## CNAME record:

- Purpose: create an alias for a domain or subdomain. They point to another domain name rather than an IP address
- all DNS queries will be redirected to a target domain

*Alias: a name that has been assumed temporarily

I want example.com to point at blog.example.com
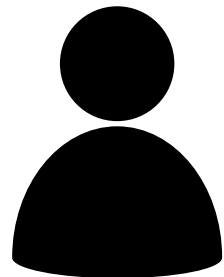
**example.com** → **blog.example.com**

CNAME Record

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# DNS

**Alias record:** (AWS specific term)

- Purpose: same as an CNAME record but are specific to AWS Route 53 DNS service
- they allow you to map a domain to a certain AWS resource (ELB , CloudFront)
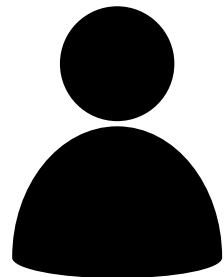
Route 53    CloudFront

I want example.com to point at an ELB

example.com  →  ELB

Alias Record

By Maya Mnaizel

# DNS CHEAT SHEET

## THANK YOU