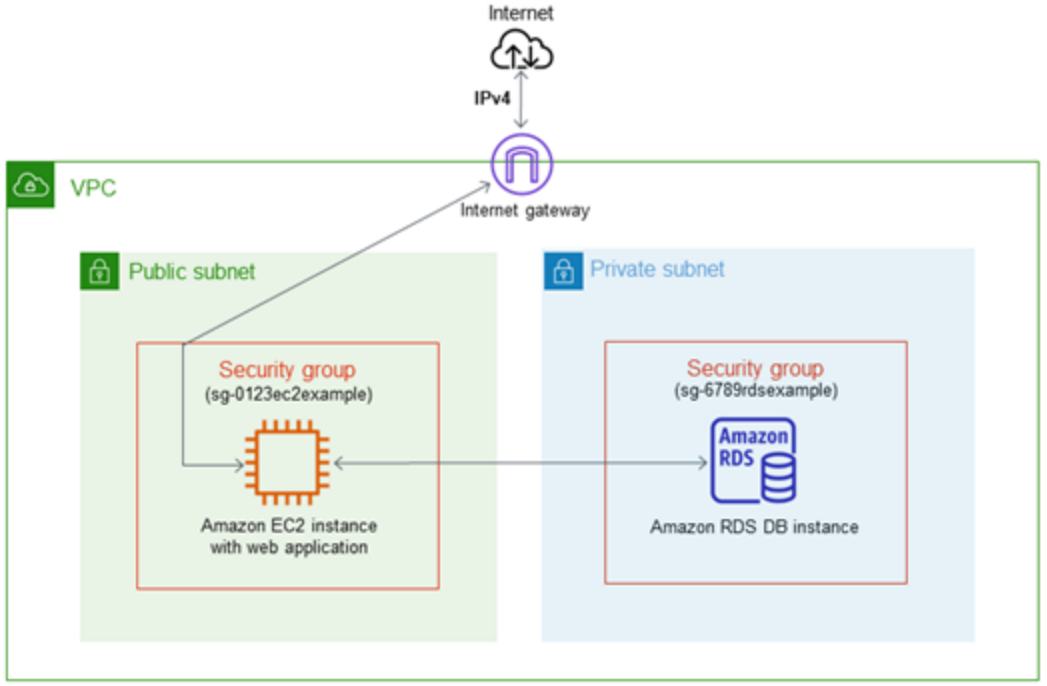
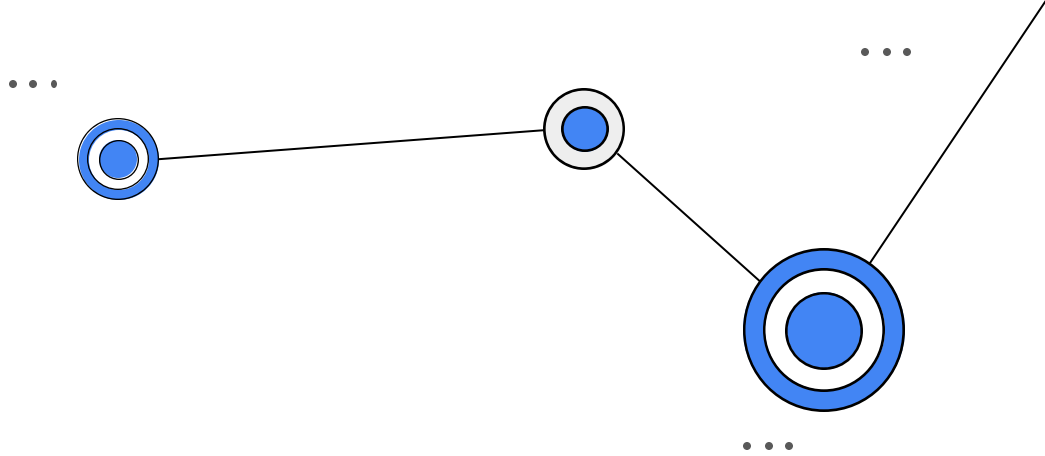
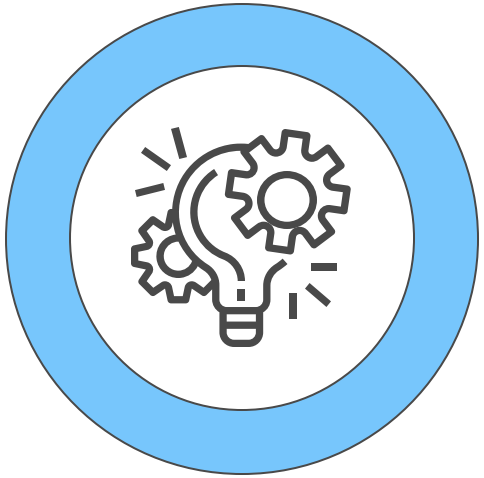




DNS, Nginx y Deployment

IIC2173 – 2025.2

Rodrigo Meza



Dudas

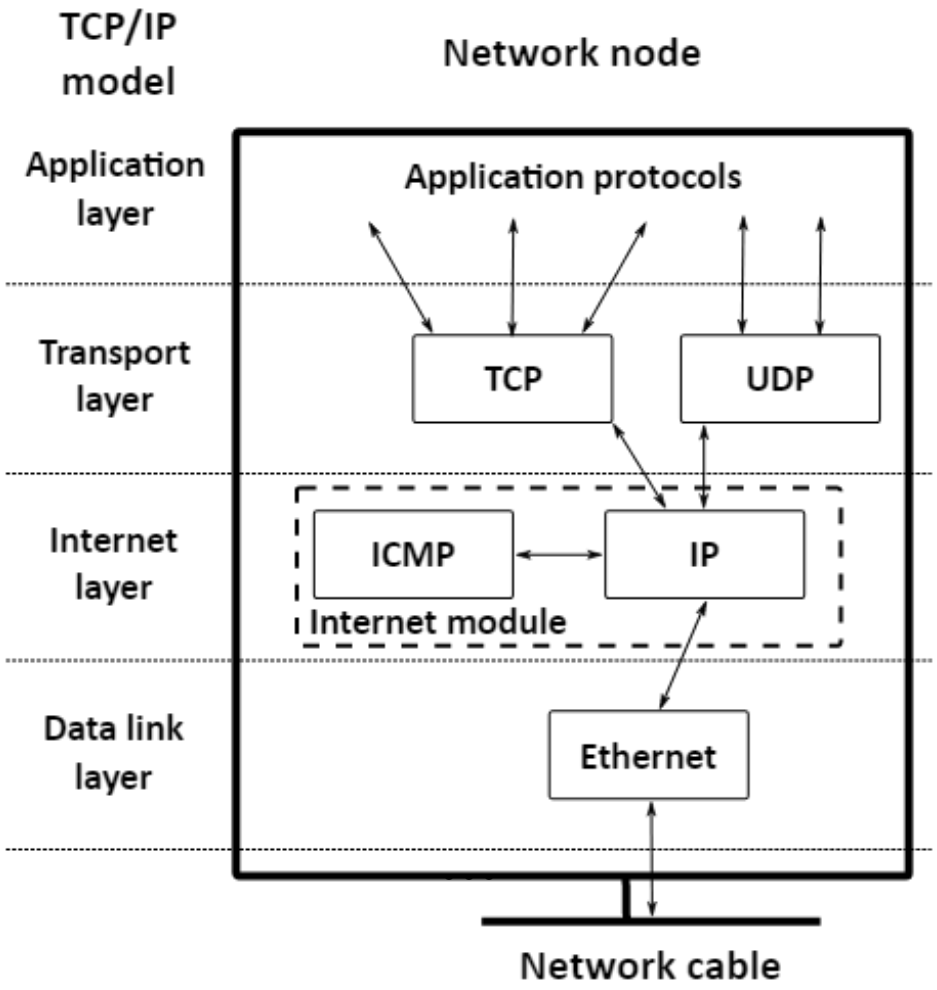
Programa
Entrega 0
(dudas muy específicas al final)
Curso
Etc
...

01

Internet y DNS

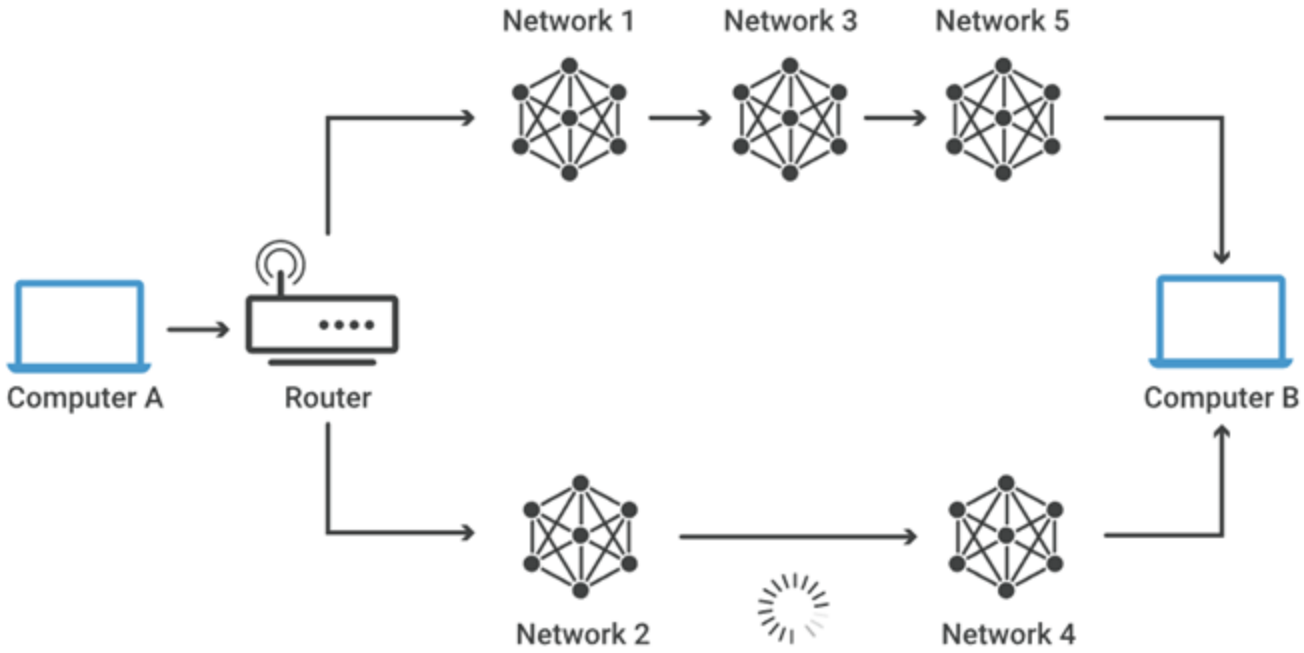
Funcionamiento básico

Layers de la internet



wikimedia commons

Routing en la internet



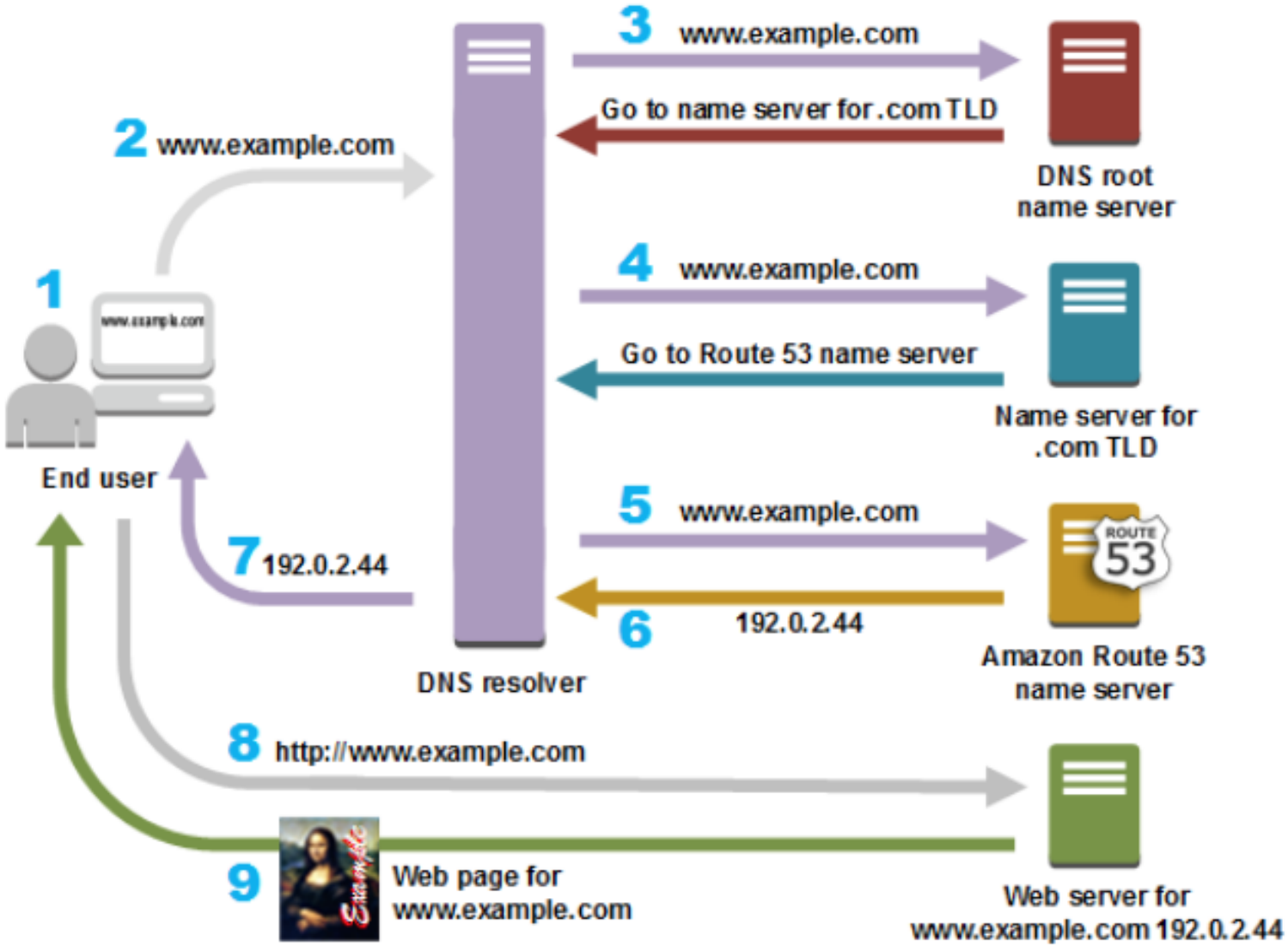
https://www.cloudflare.com/es-es/learning/network-layer/what-is-routing/

DNS



112.25.157.245

Resolución DNS



Registros clave

01

A

address - Traduce una dirección IP (v4)

02

CNAME

canonical name - Traducen un nombre a otro

03

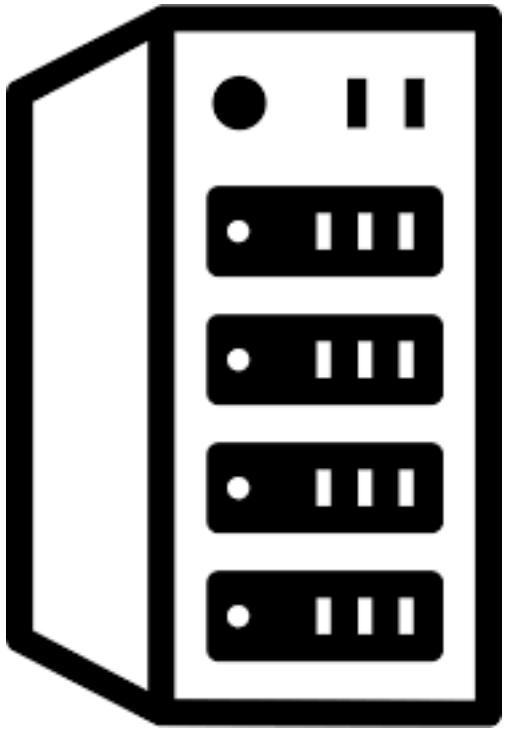
TXT

text - Información arbitraria, usada en validaciones

04

NS

nameserver - ¿Dónde puedo ir a preguntar por los registros de este dominio?

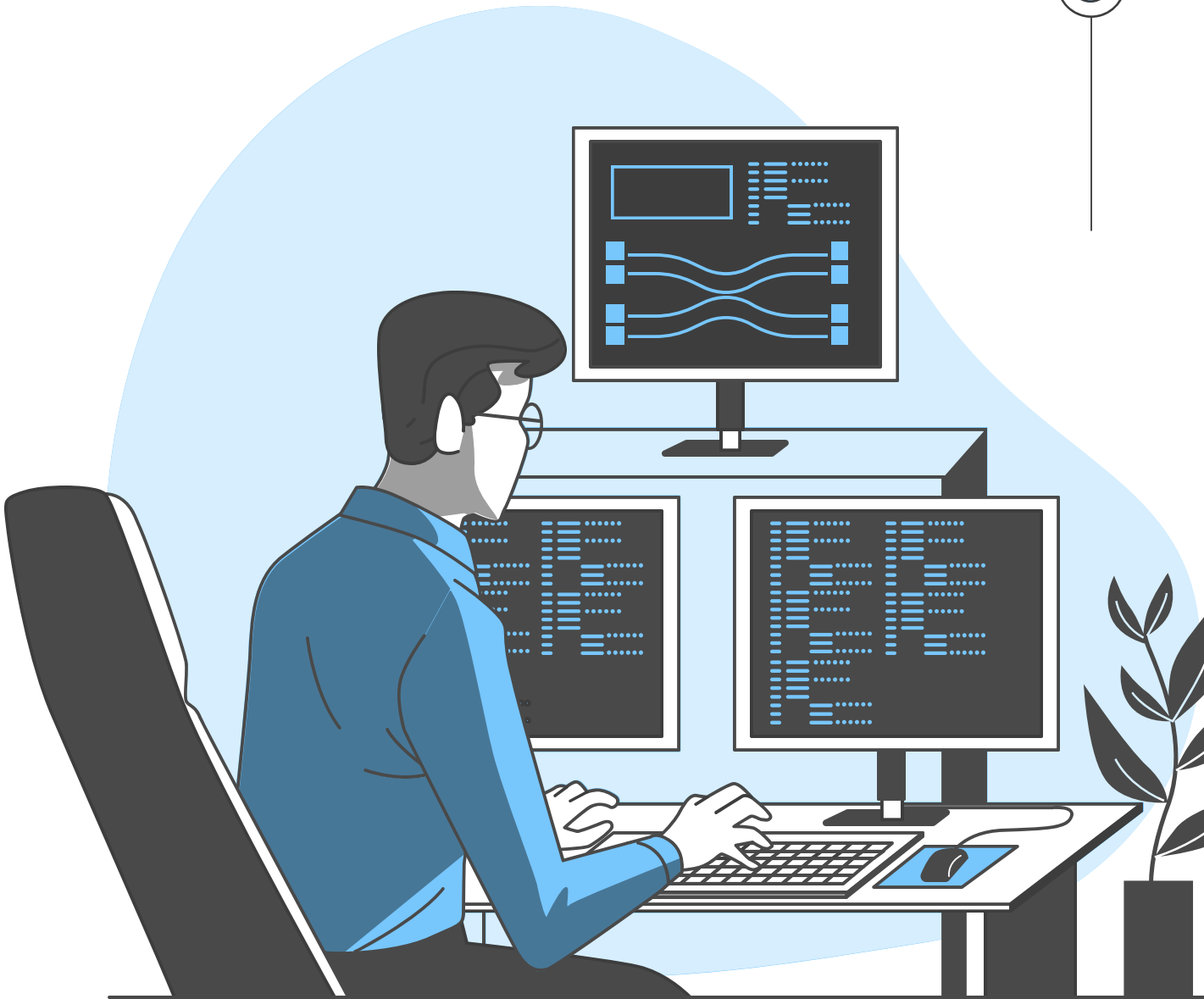


Vamos a buscar dominios!

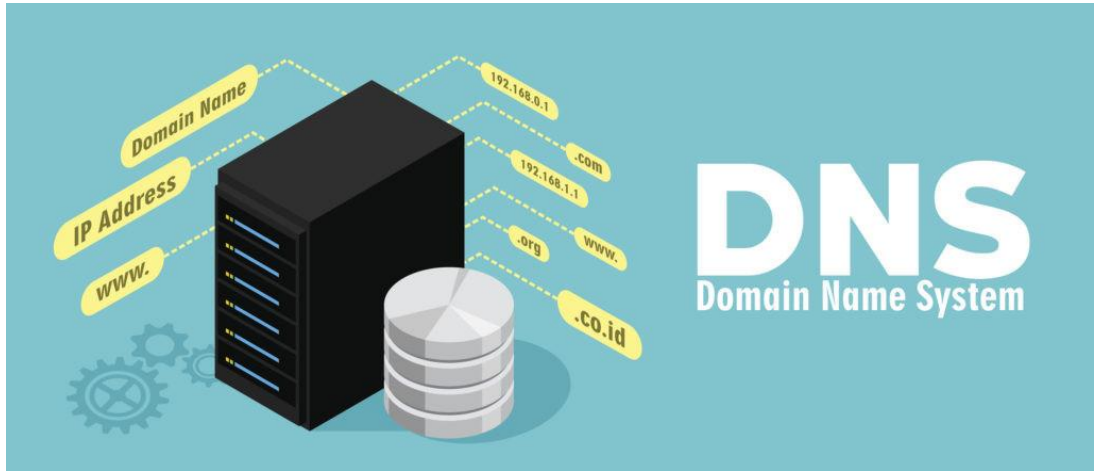
(deben tener GitHub student pack para obtener gratuitos)

nc.me (Namecheap)

get.tech



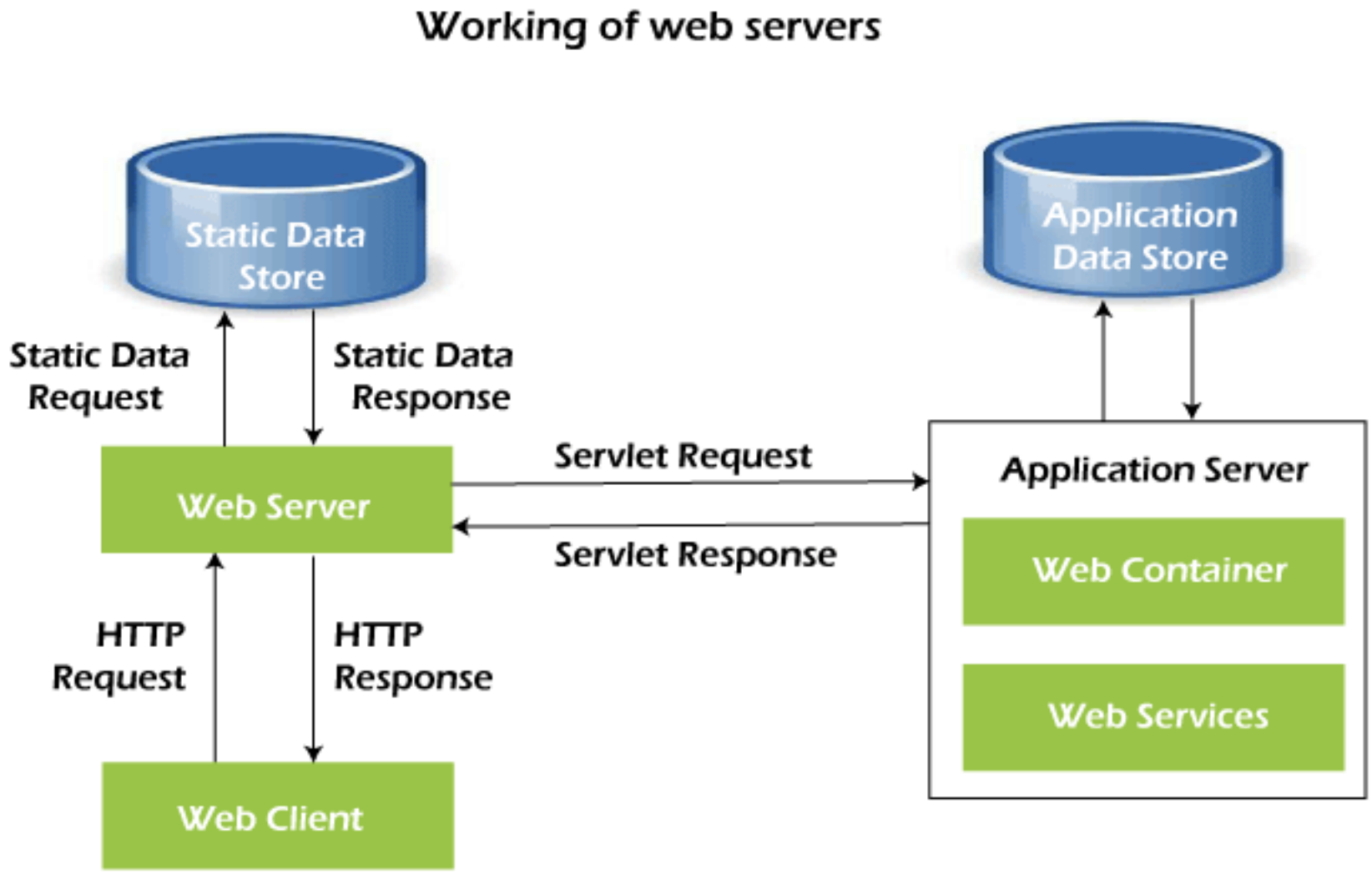
Recapitulemos los pasos



- Levantar un servidor
- Asociar una IP elástica al servidor
- Contratar un dominio
- Configurar el dominio para que su registro A apunte a la IP elástica
- Configurar el dominio para que use un subdominio www. (CName)
- Esperar a que se propague y probar

02
Servidores web y NGINX

Servidor web



https://www.javatpoint.com/web-servers

Diversos servidores “autocontenidos”









Nginx

Rápido

El más rápido vs sus tres principales competidores

Loop de eventos

Facilidad para proveer miles de conexiones



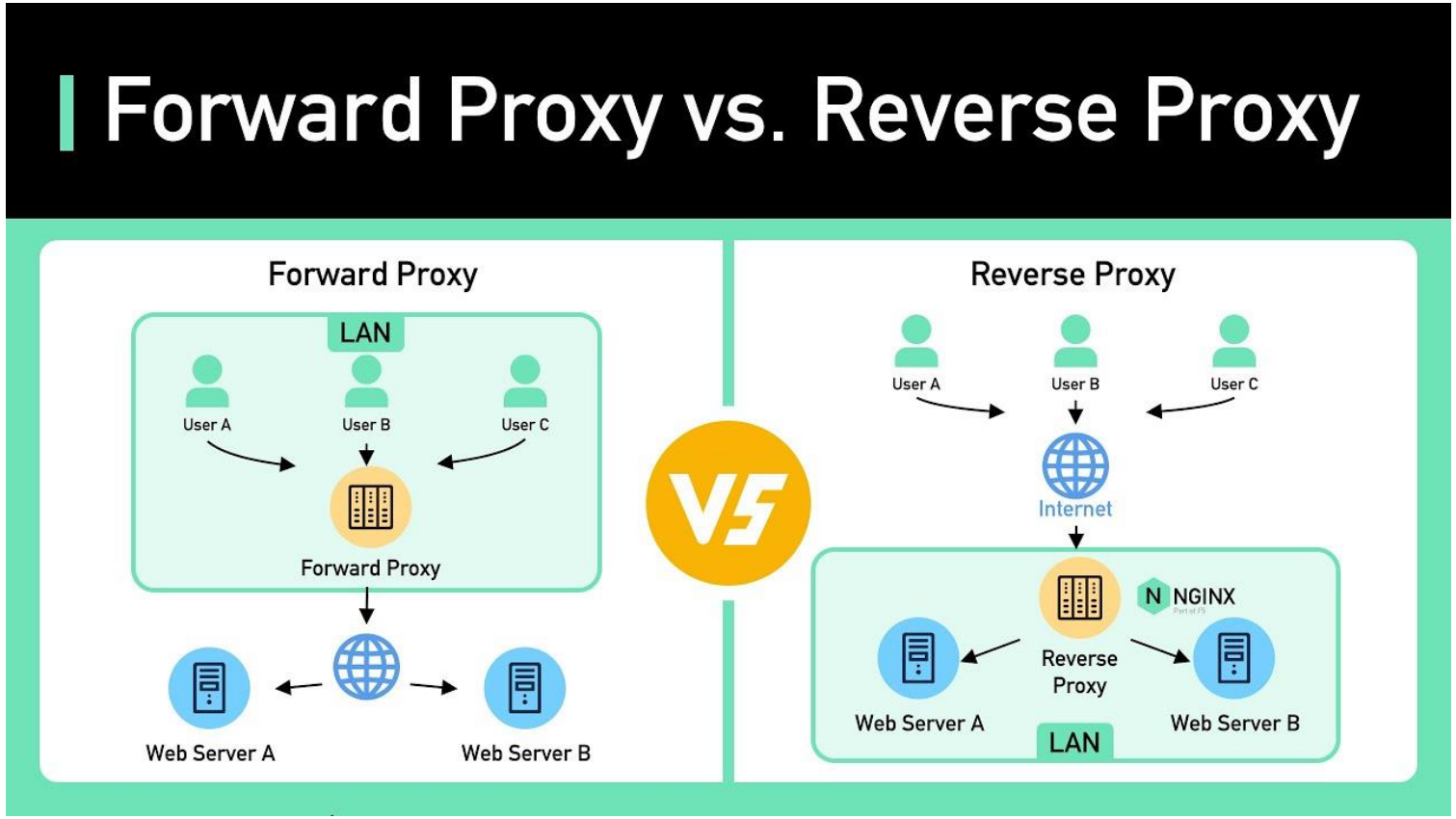
Bien establecido

Años probado en producción

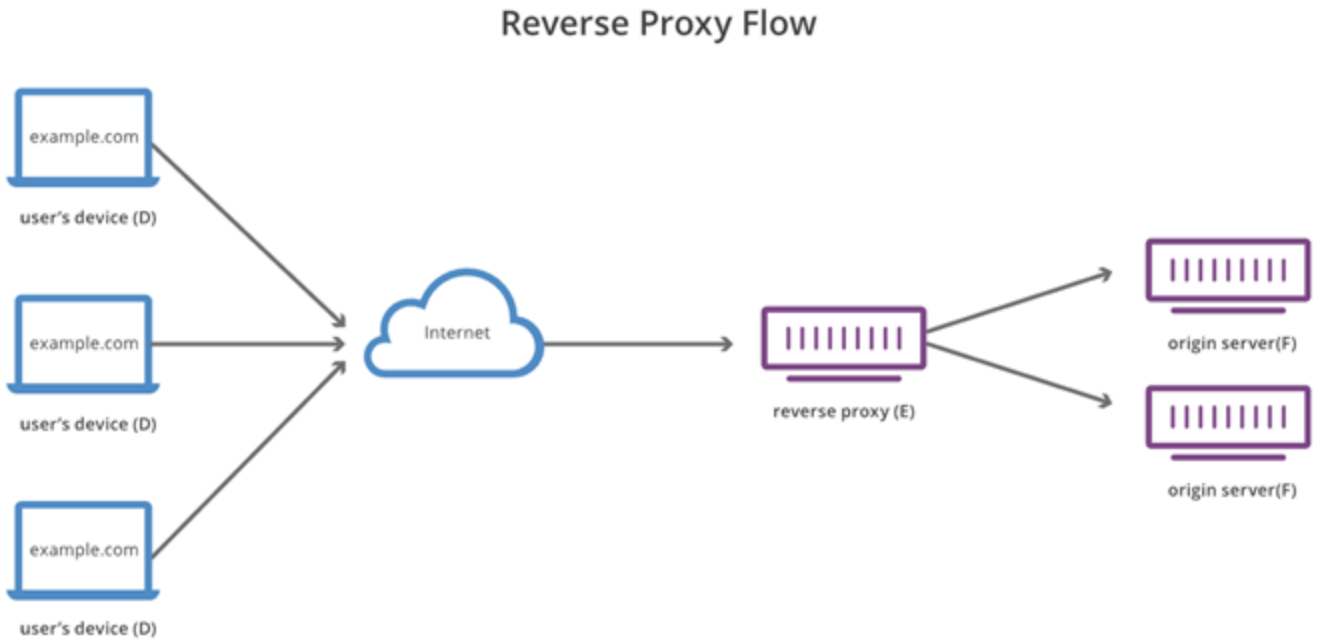
Flexible y extensible

Diversas extensiones (lua) y capacidades

Forward Proxy vs. Reverse Proxy



Reverse proxy

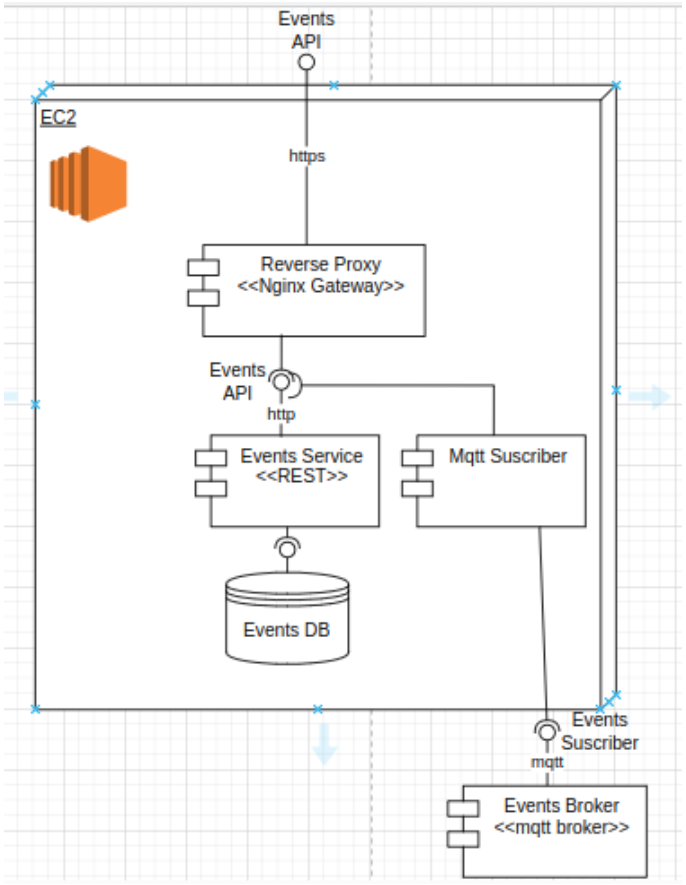


- Intermediario entre un usuario y un servidor web
- Permite implementar soluciones arquitectónicas (e.g. API gateway)
- Puede agregar balanceo de carga
- Protege ante ataques
- Cache
- Encriptación SSL

https://www.cloudflare.com/es-es/learning/cdn/glossary/reverse-proxy/

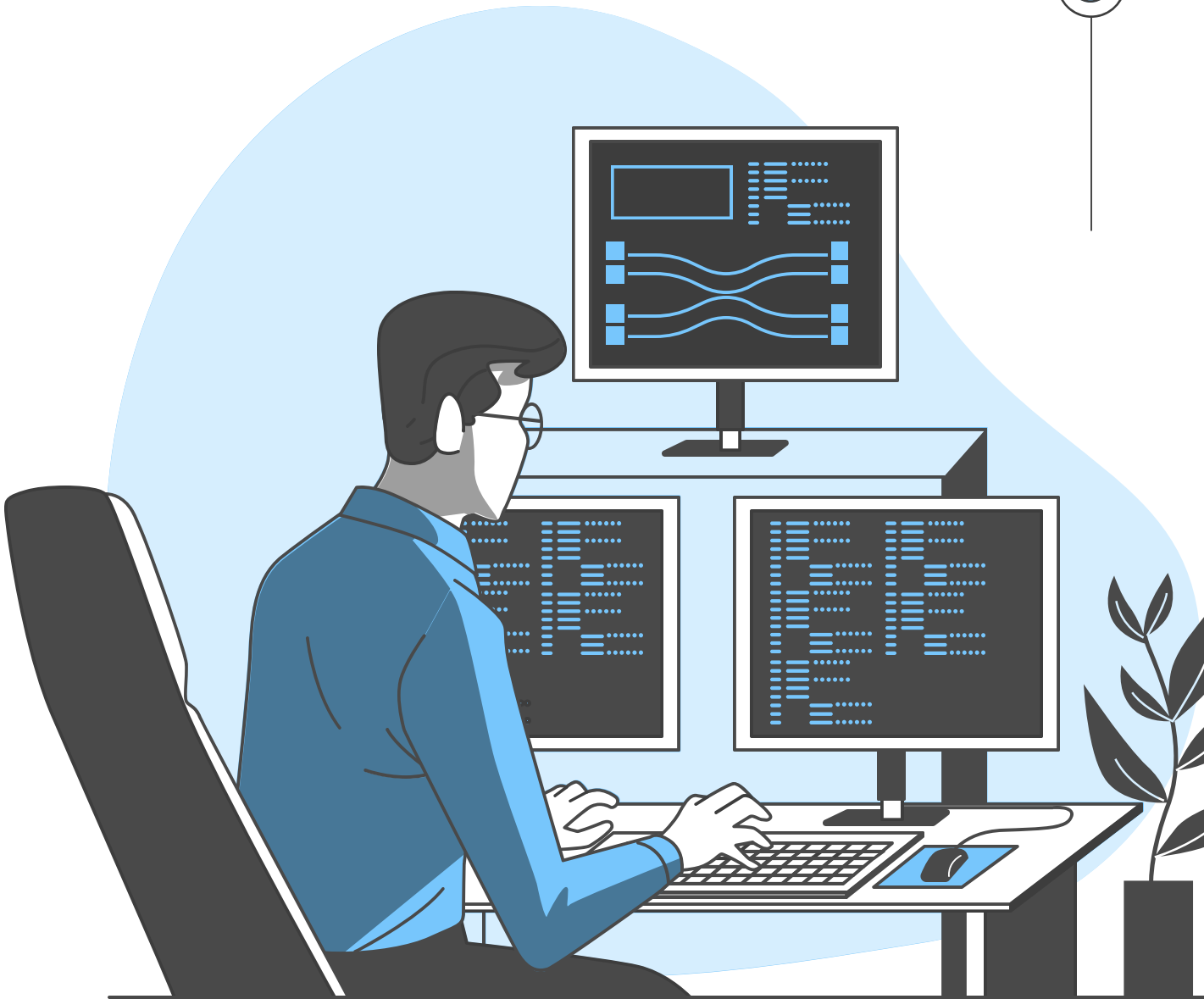
03
Deployment básico

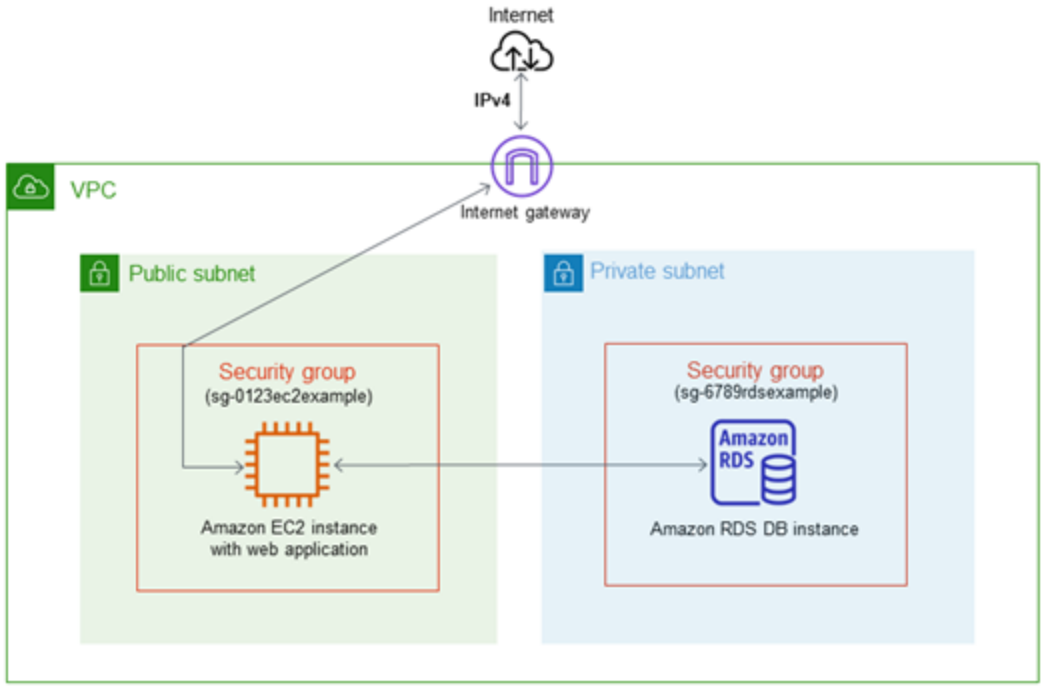
Pasos clave

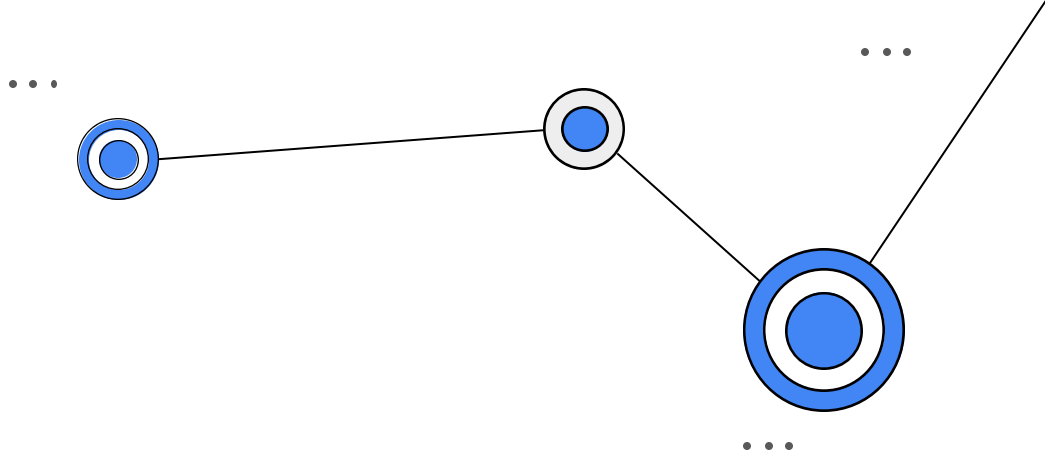


- Tener un servidor levantado y una forma de mapear accesos al puerto 80 (API en puerto 80 directamente o usar Nginx)
- Conectarse al servidor
- Crear una clave ssh en el servidor y agregar esta clave a Github (Referencia)
- Clonar el repositorio en el servidor
- Instalar dependencias necesarias (Docker)
- Configurar Nginx
- Correr la aplicación desde la carpeta del repositorio

Veámoslo en la práctica







DNS, Nginx y Deployment

IIC2173 - 2025.2

DNS RECORDS CHEAT SHEET - CONSTELLIX

A (address)

1. A (address) - Most commonly used to map a fully qualified domain name (FQDN) to an IPv4 address and acts as a translator by converting domain names to IP addresses.

AAAA (quad A)

2. AAAA (quad A) - Similar to A Records but maps to an IPv6 address (smart-phones prefer IPv6, if available).

ANAME

3. ANAME - This record type allows you to point the root of your domain to a hostname or FQDN.

CNAME

4. CNAME (Canonical Name) - An alias that points to another domain or subdomain, but never an IP address. Alias record mapping FQDN to FQDN, multiple hosts to a single location. This record is also good for when you want to change an IP address over time as it allows you to make changes without affecting user bookmarks, etc.

SOA (start of authority)

5. SOA (Start of Authority) - Stores information about domains and is used to direct how a DNS zone propagates to secondary name servers.

NS (name server)

6. NS (name server) - Specifies which name servers are authoritative for a domain or subdomains (these records should not be pointed to a CNAME).

MX (mail exchange)

7. MX (Mail eXchange) - Uses mail servers to map where to deliver email for a domain (should point to a mail server name and not to an IP address).

TXT (text)

8. TXT (text) - Allows administrators to add limited human and machine-readable notes and can be used for things such as email validation, site, and ownership verification, framework policies, etc., doesn't require specific formatting.

SRV (service)

9. SRV (service) - Allows services such as instant messaging or VoIP to be directed to a separate host and port location.

SPF (sender policy framework)

10. SPF (sender policy framework) - Helps prevent email spoofing and limits spammers.

PTR (pointer)

11. PTR (pointer) - A reverse of A and AAAA records, which maps IP addresses to domain names. These records require domain authority and can't exist in the same zone as other DNS record types (put in reverse zones).

QUICK TIP

12. Tip: Always check for typos and mistakes when entering your DNS record information, especially your IPs. The Zone Config File is a good place to check your work and spot any mistyped information.

CONSTELLIX