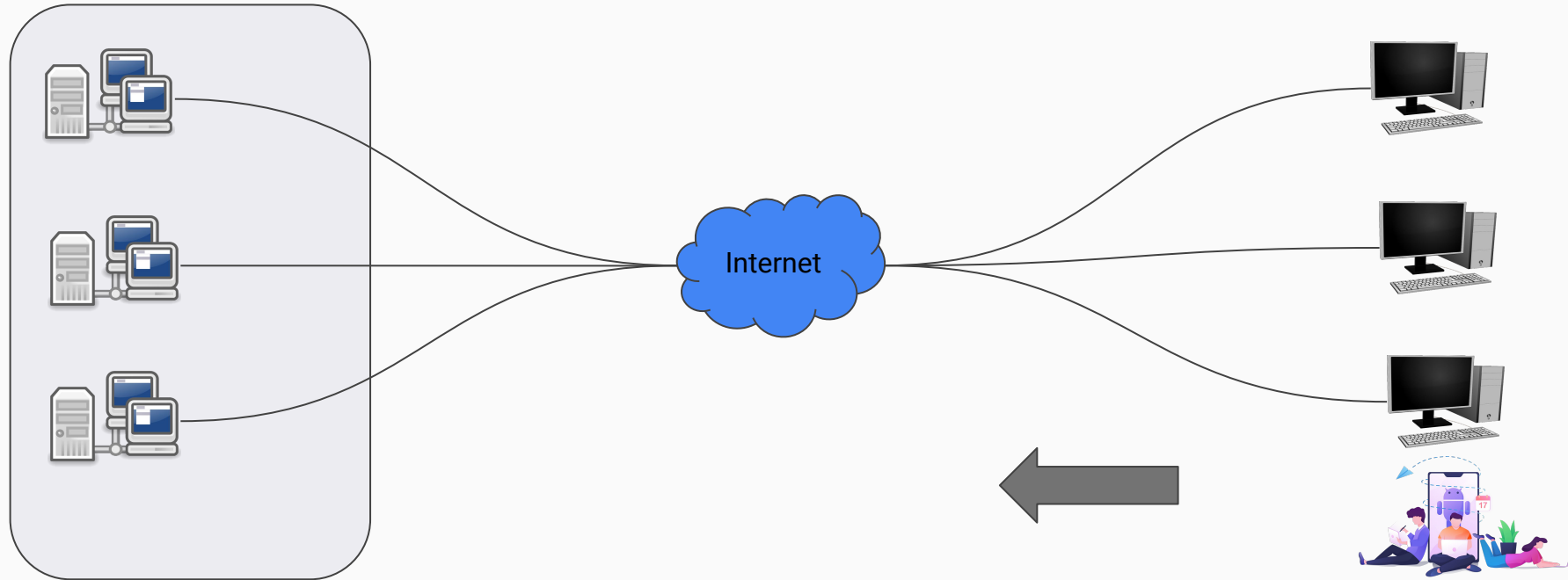


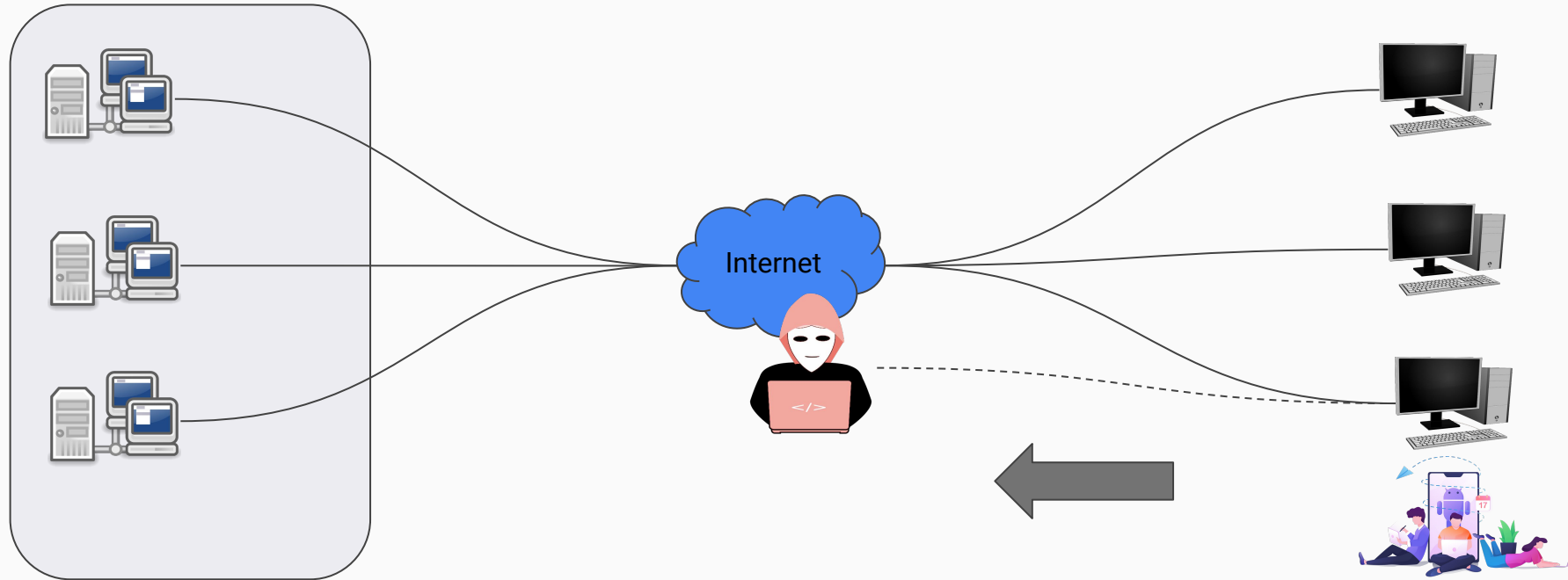
Proxy Reverso: Usando NGINX e Docker

Acesso direto à internet:

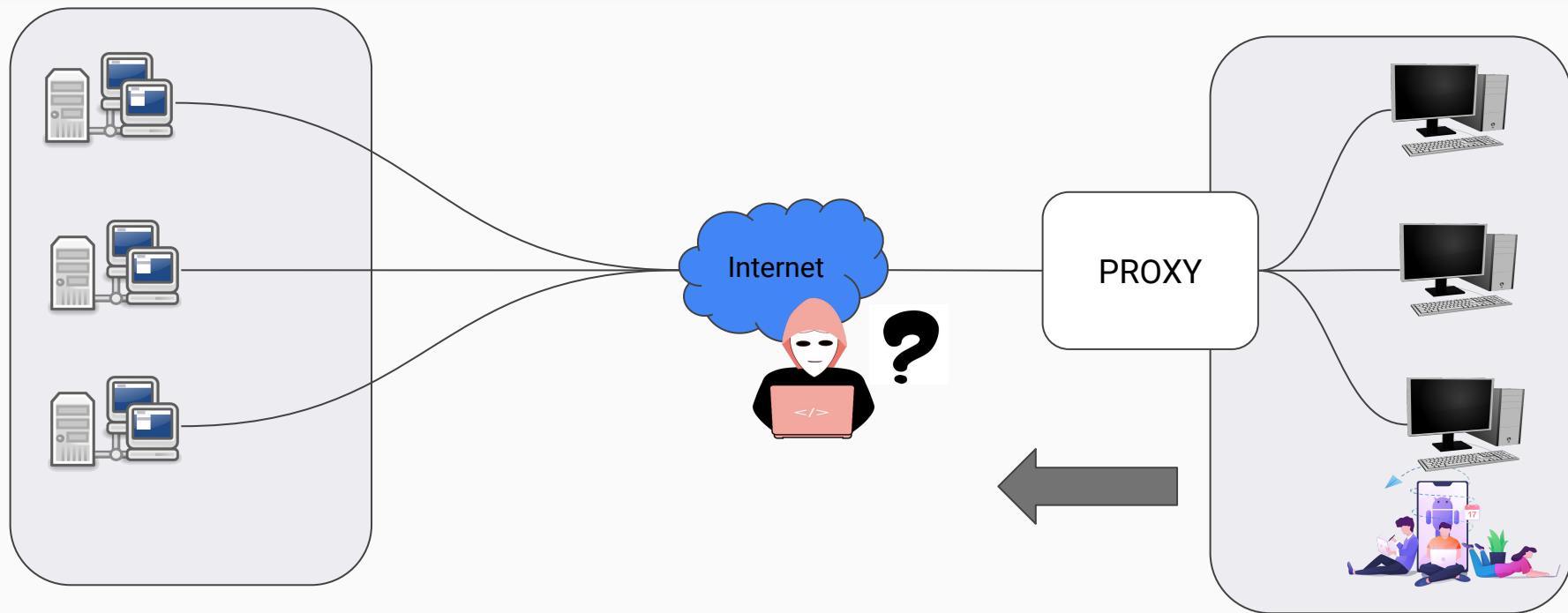


Acesso direto à internet:

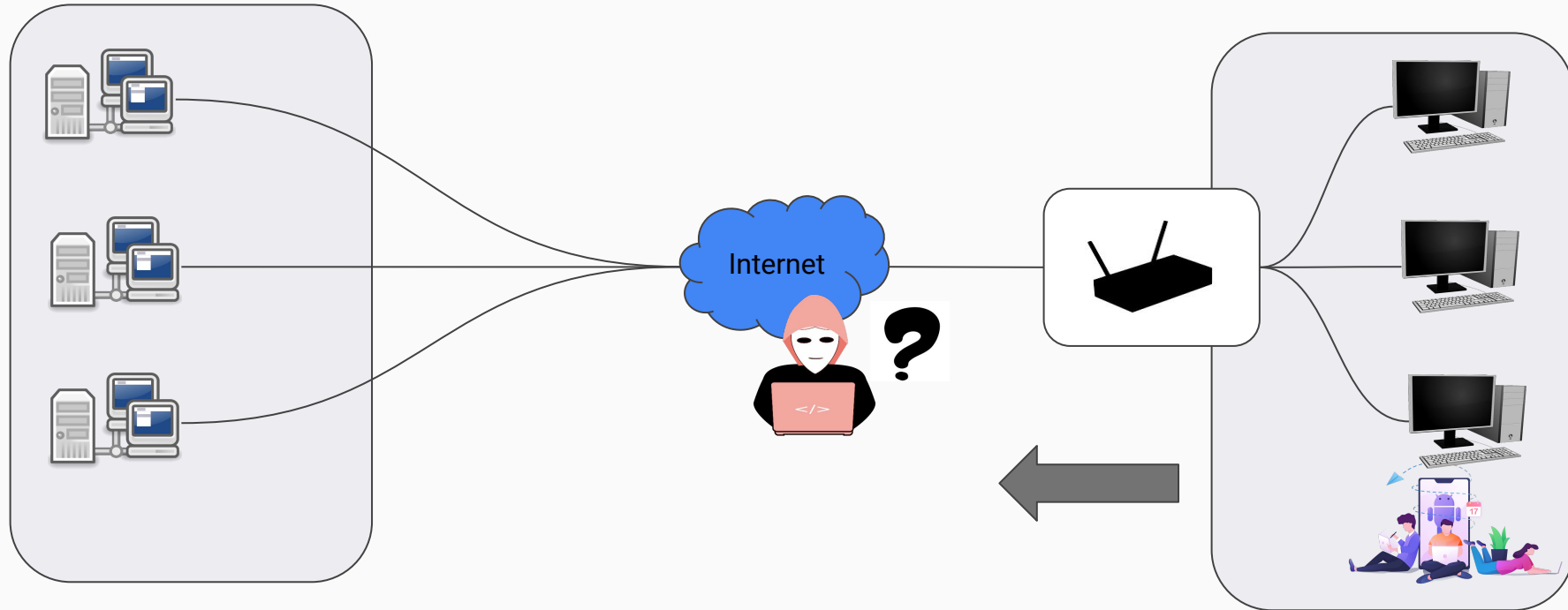
Vulnerabilidades



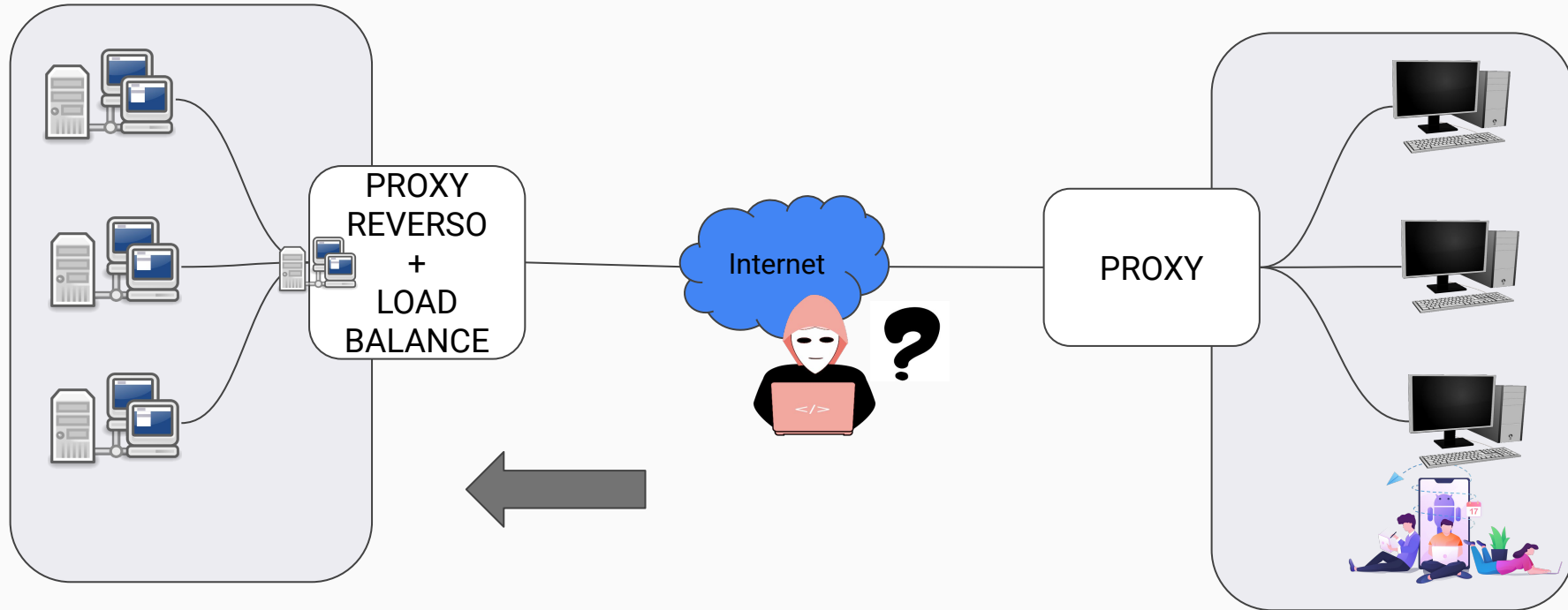
Proxy



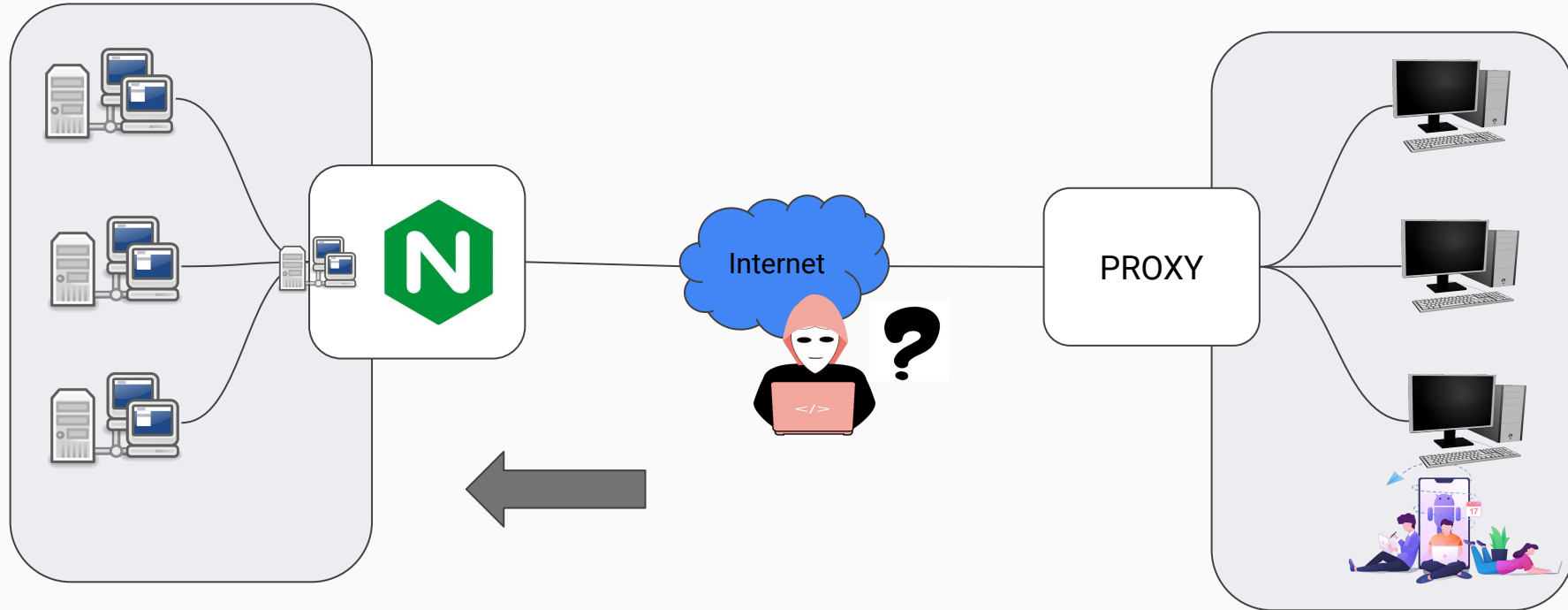
Proxy



Proxy Reverso



Proxy Reverso





NGINX

Servidor web escrito em C de código aberto.

Usos:

- Servidor web

- Load balancer

- Proxy reverso

- Cache de conteúdo

- Manipulação de SSL/TLS

NGINX

principais recursos

Eficiência em manipular várias conexões simultâneas (Escrito em C).

Modelo de processos assíncronos e não bloqueantes.

Balanceamento de carga para distribuir tráfego.

Configuração flexível e escalabilidade horizontal.

Threads para manipular conexões.

NGINX

Estrutura básica de arquivos

+ /etc/nginx

| ____ conf.d Diretório que contém arquivos adicionais de configuração

| |_ ...

|

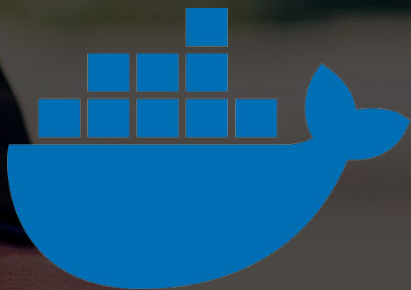
| ____ nginx.conf Arquivo principal de configuração

| ____

|

+ /var/log/nginx logs

[Full Example Configuration | NGINX](https://www.nginx.com/resources/wiki/start/topics/examples/full/)



Docker

Projetado para facilitar a criação, implantação e execução de aplicativos em contêineres.

Contêineres são unidades que incluem tudo o que é necessário para executar um software, incluindo o código, bibliotecas, dependências e configurações.

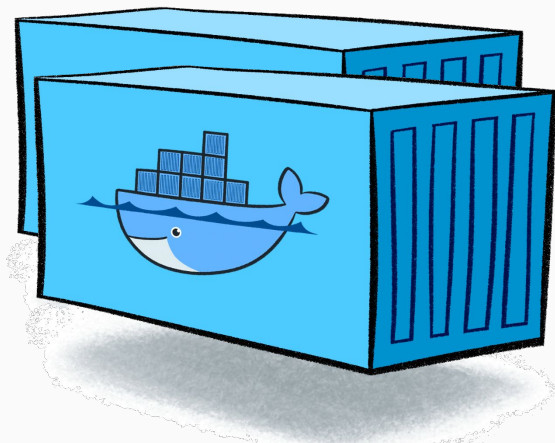


Vantagens:

- Portabilidade
- Isolamento
- Eficiência
- Escalabilidade

Docker Hub

O Docker Hub é um serviço em nuvem fornecido pela Docker, Inc. Permite que desenvolvedores compartilhem, distribuam e gerenciem contêineres.



<https://hub.docker.com/>

Filters

Products

- ☐ Images
- ☐ Extensions
- ☐ Plugins

Trusted Content

- ☐ Docker Official Image 1
- ☐ Verified Publisher 1
- ☐ Sponsored OSS 1

Operating Systems

- ☐ Linux
- ☐ Windows

Architectures

- ☐ ARM
- ☐ ARM 64
- ☐ IBM POWER

1 - 25 of 10,000 available results.

Suggested



alpine Docker Official Image • 1B+ • 10K+

Updated 2 months ago

A minimal Docker image based on Alpine Linux with a complete package index and only 5 ...

Linux ARM 64 386 PowerPC 64 LE IBM Z riscv64 x86-64 ARM

Pulls: 9,581,058

Last week



[Learn more](#)



nginx Docker Official Image • 1B+ • 10K+

Updated 19 days ago

Official build of Nginx.

Linux ARM ARM 64 386 mips64le PowerPC 64 LE IBM Z x86-64

Pulls: 14,523,246

Last week



[Learn more](#)



busybox Docker Official Image • 1B+ • 3.1K

Updated 4 months ago

Busybox base image.

Linux riscv64 IBM Z x86-64 ARM ARM 64 386 mips64le PowerPC 64 LE

Pulls: 8,306,867

Last week

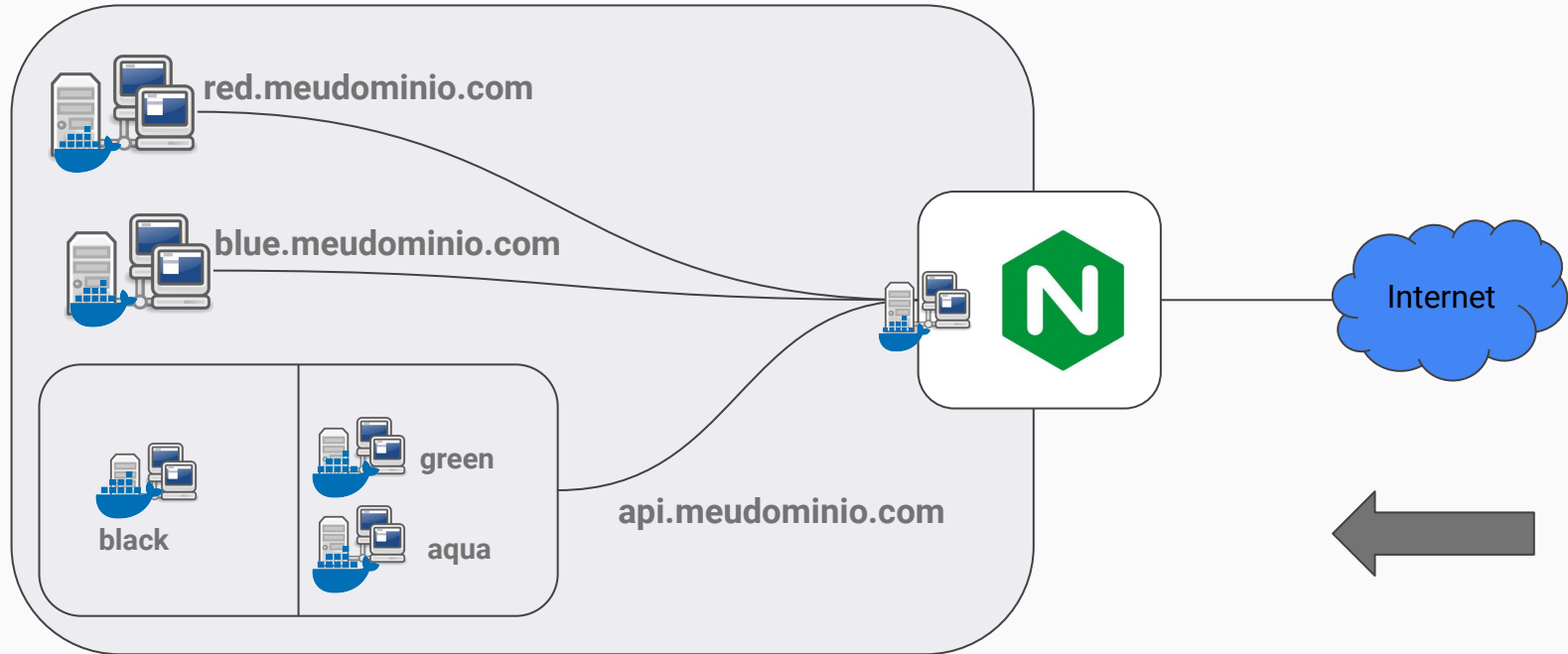


[Learn more](#)

Cenários

An aerial photograph of the New York City skyline at dusk. The sky is a mix of dark purple, blue, and orange. The city is densely packed with skyscrapers, many of which are illuminated with lights. The Empire State Building is prominent in the center, with its top lit in red and green. The Hudson River is visible on the right side of the image.

Proxy reverso e balanceamento de carga





nip.io

Stop editing your etc/hosts file with custom hostname and IP address mappings.

nip.io allows you to do that by mapping any IP Address to a hostname

examples:

10.0.0.1.nip.io maps to **10.0.0.1**

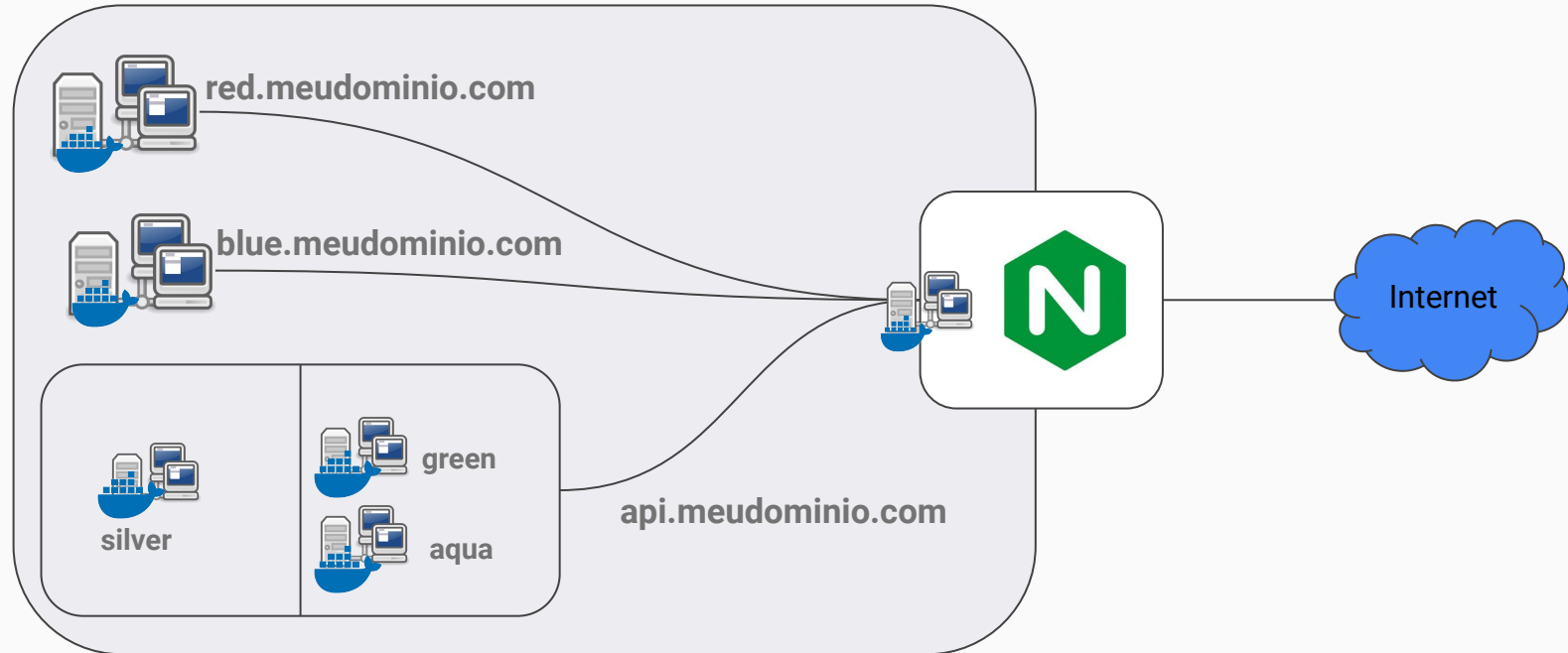
192-168-1-250.nip.io maps to **192.168.1.250**

app.10.8.0.1.nip.io maps to **10.8.0.1**

customer2-app-127-0-0-1.nip.io maps to **127.0.0.1**

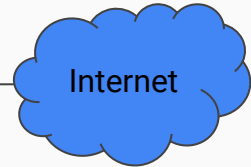
customer2-app-127-0-0-1.nip.io maps to **127.0.0.1**

Gerenciar tudo?



Docker compose cenário

Docker Compose



Docker Compose

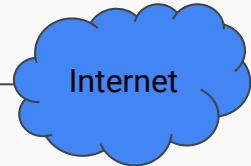
Ferramenta que permite definir e gerenciar aplicativos Docker.

Definir muitos containers em um único arquivo chamado: **docker-compose.yml**

Iniciar todos os contêineres necessários com apenas um comando.

Docker compose cenário

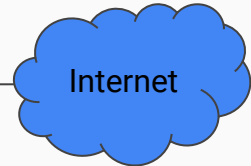
Docker Compose



Docker compose cenário








✓ EXP-NGINX-REVPROXY-LOADBALANCE

- > cert
- > html
- .gitignore
- docker-compose.yml**
- entrypoint.sh
- global_ssl.conf
- nginx.conf



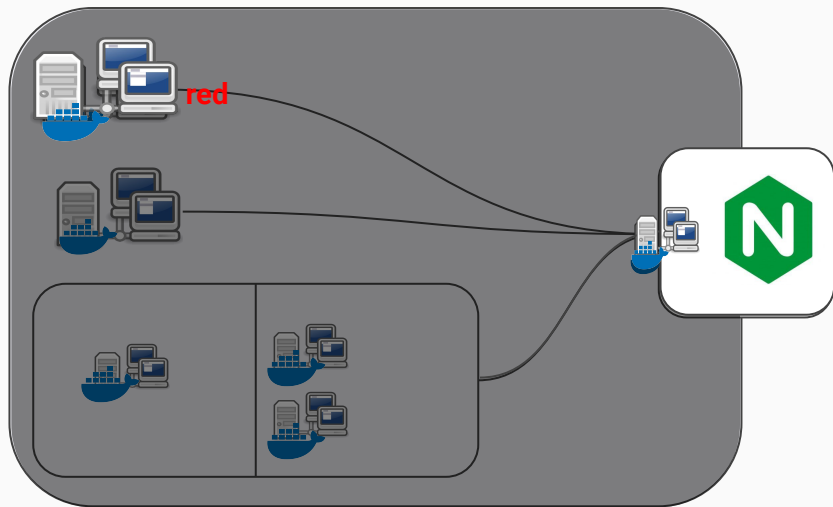
Docker compose cenário

EXP-NGINX-REVPROXY-LOADBALANCE

- >  cert
- >  html
-  .gitignore
-  docker-compose.yml
-  entrypoint.sh
-  global_ssl.conf
-  nginx.conf

```
1  ...
2  services:
3    nginx:
4      container_name: nginx
5      hostname: nginx
6      restart: unless-stopped
7      image: nginx:latest
8      ports:
9        - "80:80"
10       - "443:443"
11     networks:
12       - nginxnet
13     volumes:
14       - ./html:/usr/share/nginx/html:ro
15       - ./nginx.conf:/etc/nginx/nginx.conf
16
17   red:
18     container_name: red
19     image: nicolasoliveira/pingcolorapp:latest
20     command: "--color=red"
21     networks:
22       - nginxnet
23   ...
```

Docker compose cenário



```
1  ...
2  services:
3    nginx:
4      container_name: nginx
5      hostname: nginx
6      restart: unless-stopped
7      image: nginx:latest
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9        - "80:80"
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20     command: "--color=red"
21     networks:
22       - nginxnet
23   ...
```




Demonstração

Links úteis

<https://hub.docker.com/repository/docker/nicolasoliveira/pingcolorapp>