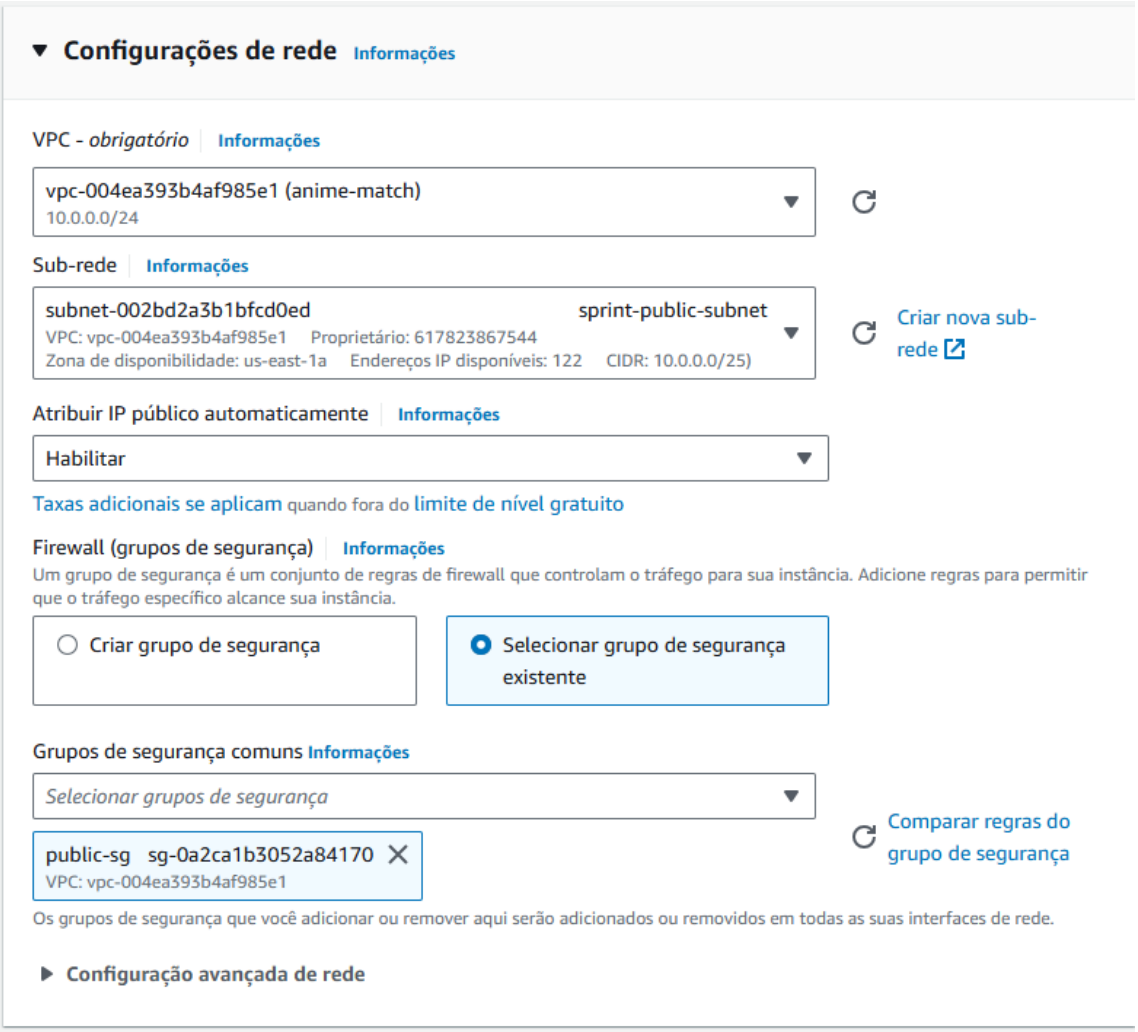
Laboratório https

Grupo 8

4°ads-B

1. Criação da ec2

Criando uma ec2 com ip público:



Conexão de instância do EC2 | Gerenciador de sessões | **Cliente SSH** | Console de série do EC2

ID da instância

i-02b08db595a286409 (https-lab)

1. Abra um cliente SSH.
2. Localize o arquivo de chave privada. A chave usada para executar esta instância é lucas_key.pem
3. Execute este comando, se necessário, para garantir que sua chave não fique visível publicamente.
   chmod 400 "lucas_key.pem"
4. Conecte-se à sua instância usando sua IP público:
   34.235.132.211

Exemplo:

ssh -i "lucas_key.pem" ubuntu@34.235.132.211

Observação: na maioria dos casos, o nome de usuário suposto está correto. No entanto, leia as instruções de uso da AMI para verificar se o proprietário da AMI alterou o nome de usuário da AMI padrão.

```
PS C:\Users\lukas\OneDrive\Documentos> ssh -i "lucas_key.pem" ubuntu@34.235.132.211
The authenticity of host '34.235.132.211 (34.235.132.211)' can't be established.
ED25519 key fingerprint is SHA256:0N0cxKMR7+0Ewbz2zzh4LSGItVKRWuxRN5rmem6mk7M.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '34.235.132.211' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1008-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

 System information as of Sat Jun  1 19:31:41 UTC 2024

  System load:  0.65              Processes:             109
  Usage of /:   23.2% of 6.71GB   Users logged in:       0
  Memory usage: 21%               IPv4 address for enX0: 10.0.0.77
  Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


The list of available updates is more than a week old.
To check for new updates run: sudo apt update


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-10-0-0-77:~$
```

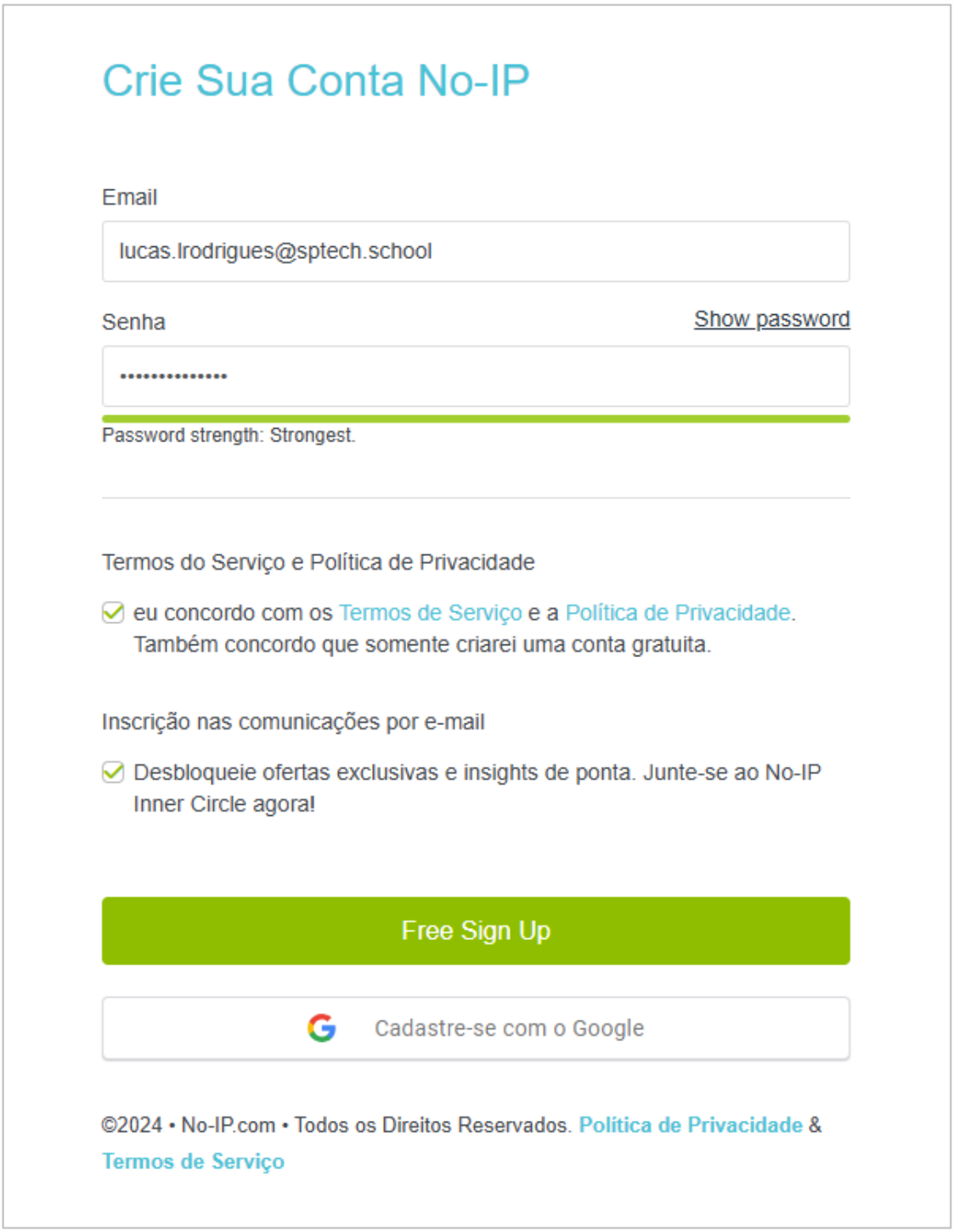
2. Nginx.

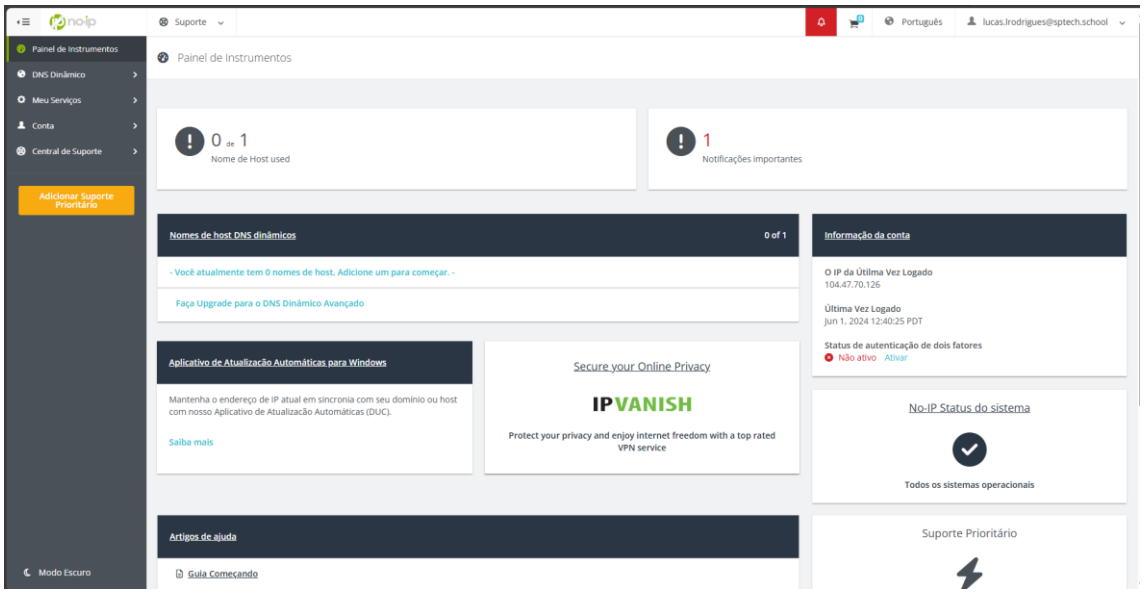
Nginx instalado na máquina.

```
ubuntu@ip-10-0-0-77:~$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
     Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
     Active: active (running) since Sat 2024-06-01 19:34:54 UTC; 16s ago
       Docs: man:nginx(8)
    Process: 7516 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
    Process: 7518 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
   Main PID: 7519 (nginx)
      Tasks: 2 (limit: 1130)
     Memory: 1.7M (peak: 1.9M)
        CPU: 12ms
     CGroup: /system.slice/nginx.service
             ├─7519 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
             └─7520 "nginx: worker process"

Jun 01 19:34:54 ip-10-0-0-77 systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Jun 01 19:34:54 ip-10-0-0-77 systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
ubuntu@ip-10-0-0-77:~$
```

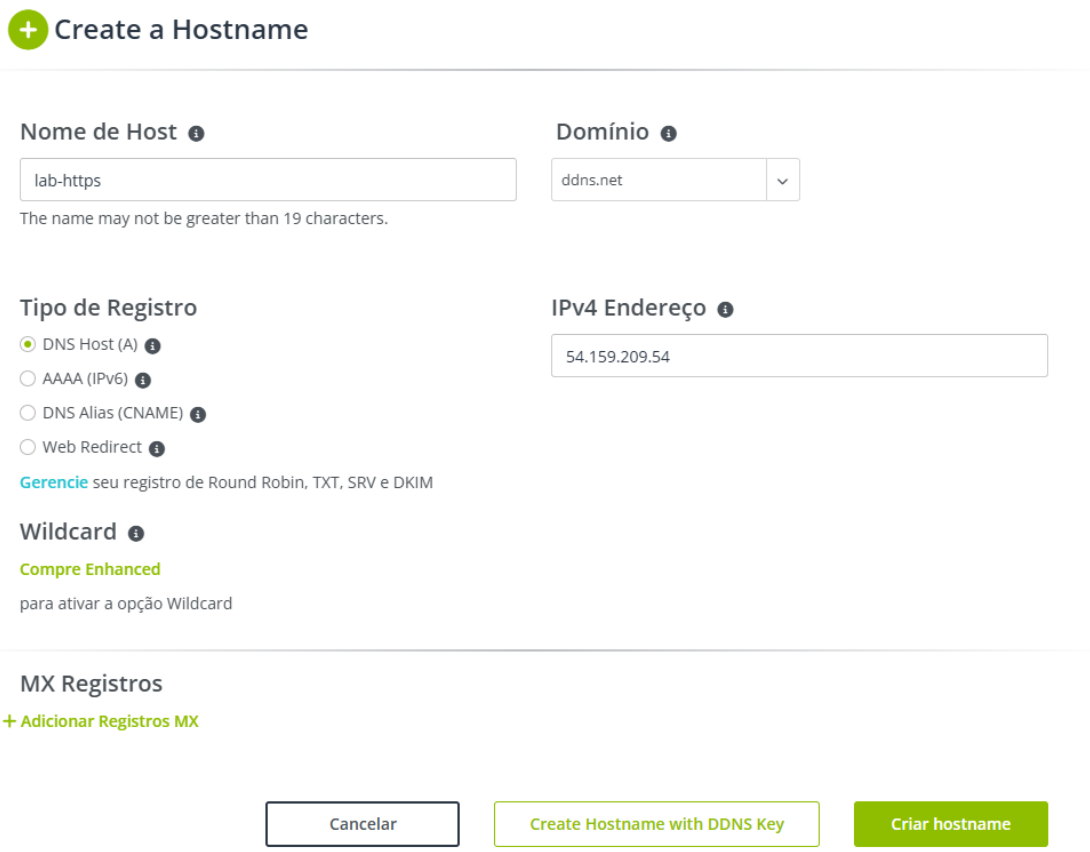
3. Domínio.

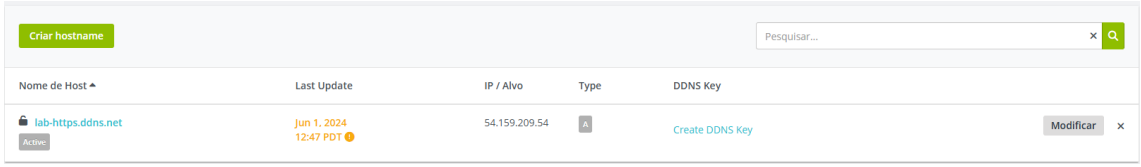
Criando uma conta no no-ip.





Adicionando um novo hostname.





4. Cetbot

Instalando o certbot.

```
ubuntu@ip-10-0-0-77:~$ sudo apt install certbot python3-certbot-nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  python3-acme python3-certbot python3-configargparse python3-icu python3-josepy python3-parsedatetime python3-rfc3339
Suggested packages:
  python-certbot-doc python3-certbot-apache python-acme-doc python-certbot-nginx-doc
The following NEW packages will be installed:
  certbot python3-acme python3-certbot python3-certbot-nginx python3-configargparse python3-icu python3-josepy
  python3-parsedatetime python3-rfc3339
0 upgraded, 9 newly installed, 0 to remove and 0 not upgraded.
Need to get 1097 kB of archives.
After this operation, 5699 kB of additional disk space will be used.
```

5. De volta ao nginx.

Adicionando o server name ao arquivo “/etc/nginx/sites-available/default”.

```
server {
        listen 80 default_server;
        listen [::]:80 default_server;

        root /var/www/html;

        index index.html index.htm index.nginx-debian.html;

        server_name lab-https.ddns.net;

        location / {
                # First attempt to serve request as file, then
                # as directory, then fall back to displaying a 404.
                try_files $uri $uri/ =404;
        }

        # pass PHP scripts to FastCGI server
        #
        #location ~ \.php$ {
        #       include snippets/fastcgi-php.conf;
        #
        #       # With php-fpm (or other unix sockets):
        #       fastcgi_pass unix:/run/php/php7.4-fpm.sock;
        #       # With php-cgi (or other tcp sockets):
```

Carregando o nginx.

```
ubuntu@ip-10-0-0-77:/etc/nginx/sites-available$ sudo systemctl reload nginx
ubuntu@ip-10-0-0-77:/etc/nginx/sites-available$
```

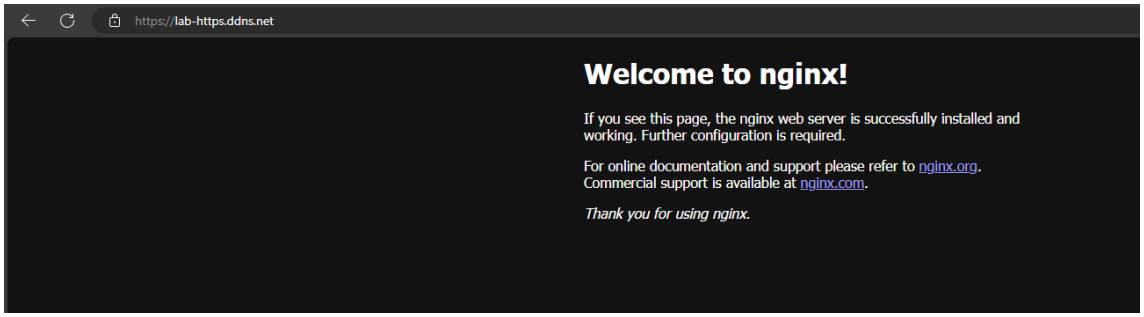
```
ubuntu@ip-10-0-0-77:/etc/nginx/sites-available$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
ubuntu@ip-10-0-0-77:/etc/nginx/sites-available$
```

6. De volta ao Certbot.

Criando o certificado https.

```
ubuntu@ip-10-0-0-77:/etc/nginx/sites-available$ sudo certbot --nginx -d lab-https.ddns.net
Saving debug log to /var/log/letsencrypt/letsencrypt.log
Enter email address (used for urgent renewal and security notices)
 (Enter 'c' to cancel): lucas.lrodrigues@sptech.school

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Please read the Terms of Service at
https://letsencrypt.org/documents/LE-SA-v1.4-April-3-2024.pdf. You must agree in
order to register with the ACME server. Do you agree?
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
(Y)es/(N)o: y

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
Would you be willing, once your first certificate is successfully issued, to
share your email address with the Electronic Frontier Foundation, a founding
partner of the Let's Encrypt project and the non-profit organization that
develops Certbot? We'd like to send you email about our work encrypting the web,
EFF news, campaigns, and ways to support digital freedom.
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
(Y)es/(N)o: n
Account registered.
Requesting a certificate for lab-https.ddns.net

Successfully received certificate.
Certificate is saved at: /etc/letsencrypt/live/lab-https.ddns.net/fullchain.pem
Key is saved at:         /etc/letsencrypt/live/lab-https.ddns.net/privkey.pem
This certificate expires on 2024-08-30.
These files will be updated when the certificate renews.
Certbot has set up a scheduled task to automatically renew this certificate in the background.

Deploying certificate
Successfully deployed certificate for lab-https.ddns.net to /etc/nginx/sites-enabled/default
Congratulations! You have successfully enabled HTTPS on https://lab-https.ddns.net

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
If you like Certbot, please consider supporting our work by:
 * Donating to ISRG / Let's Encrypt:   https://letsencrypt.org/donate
 * Donating to EFF:                    https://eff.org/donate-le
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
ubuntu@ip-10-0-0-77:/etc/nginx/sites-available$
```

7. Teste de acesso.



8. Configuração NGINX.

Configuração criada pelo Certbot no arquivo default.

```
    listen [::]:443 ssl ipv6only=on; # managed by Certbot
    listen 443 ssl; # managed by Certbot
    ssl_certificate /etc/letsencrypt/live/lab-https.ddns.net/fullchain.pem; # managed by Certbot
    ssl_certificate_key /etc/letsencrypt/live/lab-https.ddns.net/privkey.pem; # managed by Certbot
    include /etc/letsencrypt/options-ssl-nginx.conf; # managed by Certbot
    ssl_dhparam /etc/letsencrypt/ssl-dhparams.pem; # managed by Certbot

}
```