

Registry interno

```
root@leandrocgsl:/home/leandrocgsl# docker version
Client: Docker Engine - Community
Version:      19.03.4
API version:  1.40
Go version:   go1.12.10
Git commit:   9013bf583a
Built:        Fri Oct 18 15:52:16 2019
OS/Arch:      linux/amd64
Experimental: false

Server: Docker Engine - Community
Engine:
Version:      19.03.4
API version:  1.40 (minimum version 1.12)
Go version:   go1.12.10
Git commit:   9013bf583a
Built:        Fri Oct 18 15:50:48 2019
OS/Arch:      linux/amd64
Experimental: false
containerd:
Version:      1.2.10
GitCommit:    b34a5c8af56e510852c35414db4c1f4fa6172339
runc:
Version:      1.0.0-rc8+dev
GitCommit:    3e425f80a8c931f88e6d94a8c831b9d5aa481657
docker-init:
Version:      0.18.0
GitCommit:    fec3683
```

Figura 1: versao utilizada

```
root@leandrocgsl:/home/leandrocgsl# openssl version -a
OpenSSL 1.1.1d 10 Sep 2019
built on: Sat Oct 12 19:56:43 2019 UTC
platform: debian-amd64
options: bn(64,64) rc4(16x,int) des(int) blowfish(ptr)
compiler: gcc -fPIC -pthread -m64 -Wa,--noexecstack -g -O2 -fdebug-prefix-map=/build/openssl-VwazYa/openssl-1.1.1d=. -fstack-protector-strong -Wformat -Werror=format-security -DOPENSSL_USE_NODELETE -DL_ENDIAN -DOPENSSL_PIC -DOPENSSL_CPUID_OBJ -DOPENSSL_IA32_SSE2 -DOPENSSL_BN_ASM_MONT -DOPENSSL_BN_ASM_MONT5 -DOPENSSL_BN_ASM_GF2M -DSHA1_ASM -DSHA256_ASM -DSHA512_ASM -DKECCAK1600_ASM -DRC4_ASM -DMD5_ASM -DAESNI_ASM -DVPAES_ASM -DGHASH_ASM -DCEP_NISTZ256_ASM -DX25519_ASM -DPOLY1305_ASM -DDEBUG -Wdate-time -D_FORTIFY_SOURCE=2
OPENSSLDIR: "/usr/lib/ssl"
ENGINESDIR: "/usr/lib/x86_64-linux-gnu/engines-1.1"
```

Figura 2: versão utilizada do openssl

```
root@leandrocgsl:/home# mkdir -p /docker_data/certs/
```

Figura 3: Criação do diretório p/ armazenar os certificados

```
openssl req \
  -newkey rsa:4096 -nodes -sha256 -keyout /docker_data/certs/domain.key \
  -x509 -days 365 -out /docker_data/certs/domain.crt
```

Figura 4: Cria o certificado

```
root@leandrocgsl:/home# openssl req \
> -newkey rsa:4096 -nodes -sha256 -keyout /docker_data/certs/domain.key \
> -x509 -days 365 -out /docker_data/certs/domain.crt
```

Figura 5: Cria uma chave com encriptação SHA256 e vai salvar como domain.key no diretório de cima e domain.crt no mesmo diretório e vai ter uma validade de tempo 365 dias

```

root@leandrocgisi:/home# openssl req \
> -newkey rsa:4096 -nodes -sha256 -keyout /docker_data/certs/domain.key \
> -x509 -days 365 -out /docker_data/certs/domain.crt
Generating a RSA private key
.....++++
.....++++
writing new private key to '/docker_data/certs/domain.key'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:BR
State or Province Name (full name) [Some-State]:
Locality Name (eg, city) []:
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []:leandrocgisi.erudio.com.br
Email Address []:
root@leandrocgisi:/home# █

```

Figura 6: Após inserir o comando do openssl, será exibida algumas perguntas. obs: perguntas sem a resposta significa que é opcional

```

root@leandrocgisi:/home# ls -lia /docker_data/certs/
total 16
419091 drwxr-xr-x 2 root root 4096 Nov  7 19:31 .
419036 drwxr-xr-x 3 root root 4096 Nov  7 19:27 ..
419102 -rw-r--r-- 1 root root 2037 Nov  7 19:31 domain.crt
419098 -rw----- 1 root root 3272 Nov  7 19:30 domain.key
root@leandrocgisi:/home# █

```

Figura 7: arquivos criados , são responsáveis pela certificação

```

root@leandrocgisi:/home# cat /docker_data/certs/domain.key
-----BEGIN PRIVATE KEY-----
MIIRAI8ADANBgkqhkiG9w0BAQEFAASCCS4wggkqAgEAAoICAQCvrexAg0a97dQz
cTbCmtgStecdw9Xaut2WLSGD6XA62qj7f3DaG85X5/u7V+m5ZRHwqzZeQhndaPy3
F2coQcwzSphW4KPXQXbznZMHGwj4JkBVvF1mUojqgaJl+8gxYW9eUD0ESlpXZIOx
ziwJY1Vq5t21IaN6CGs92Ce0XwtLQXCcRV+50iPg6s/hk8pmbJtvTa28AzzMsyzh
DzinVwVrji0ubUrcYmVm8HE/n0eQA/9EUCLDbyYHlIcL6oNrf+P94k5q/HBH+hvx3
7CLUi+42cedDY8mzsASnQamPxc7JTUfUxKjosIQBCG0aJWo2La3B6lIXaYPztw
bziQrfA0Do+X+2UrT2Q/ue6JBGwp2z46VYPukoIzPhNk7WTfmktY10xRF5ZWbGG3
vv0jY88l05FK4Qc8BIPF4kK5l9g2sqDeik2u4DHCzhjkSQSa5f9t1JDLqpKp6iQa
Aqdi4qhLPjtkXcGZdJ6rspUbsN631PZHzenUI/V+Iy7NFPbw//N/LJY3Wmil8kus
D2/GGacvxlnfIMuP2ZxiSZ4Bk3Y7kDgx2hP/esuablT9HGswltjbCH4VDeNN5Hob
LJ3wdWLMb6T8qHzooteQs9ScEpbhnyByS9NxBjswrmP0yd+BLuQPh4ucaUvGpQBr
oB/f7sIOKKb45iBxw1EjiesrGb8wewIDAQABAoICAE+HSIAb7Z2LZ76x7bwUEETI
HAwZb2JJXa5yV83Di47ZFc5kbs4N8GdTGv5B+gh3fI/VihM5kUPuFkx7evN6ddpy
Vmxd3VmF7Tdzie/H4aEUj+NAFngPvP0MI9xPEt1n4marpD0hBTh37yeE0eKeGTj/
sjYh0EQyM3njMSyYMIas5SXUCePediGHqvPT7z2RZcpbxDB1nBEXHilz0wALT13
Zye7SjxhhWENJ/dILHvBk3l1XYdit37mvcF/tSSNL/mBuHfzWSIEMZ6IQ2wNp/T1
sl+KePDjKfgdfYkC5SbdQIM5qndBjQdheRnPNJbvJCfPTA76dgaJ+PKLy0v0I+L
vmM+6bi+8vdTL+aCLC9/YXMIyrNMWslvtbfQK3GcpbTwKOV2eXCkkXnkp6pgAsVd
i/8VPNSInBiHonhlxFwdudkD94bFRVYebv7s06QcYYNYK+nWDYrDIILDGfKadhIm
xVxKgwNgx3wTQjbwT49Mac60dQBUSGEMAI fGnxgxfXQXA9svt9EVsfrWewxcX6Z
W+8cgq/gL6T4x6b/3yYq0E5Py8eHq3SSfa9CHK+Zh5RZVHW6CdFbnvj1u6aKUjuN
3D4T/CjSrNLLjvBmpayPNCpD0YQRPCT3ISeBcaBvEcDnczxTMHwIbal6t09jRPSn
oJAl10nagotRmt2MX8vhAoIBAQN0lFle3RneLaio97e0WKdyE6Tv2vk7KwJP6Jz
Gr07Gx4YLKiodLkFh+mDDzLaQrBeed/LXLfi2bYuL07ZCOLUS57SsGpMacUJXcQ4
IwvfFyEdu+futbfE2pT9x47jl5hXQcWklxodKPeMT6k0syBC9+4ouEdJKHFL7gXT
rTci9SeXPYwIM4x5beYmCdsjhESjZpIRYcNfpjl65q5W69j3jU5jneihpT8pcMq
b6E/SA7sq5KP3Y3JKFHTrl8p0PcM6xowuCjarPYMnfq7F7dt5r7Ttj8Ynq/Fe66r
mK4CoMt06fxzuCulqSoFdtU8ao6pcDFK00AsYY737lqCWF9fAoIBAQCdCJ/Y0hDhp
tFNvhPsaRnd6nRMwRULJjgXeuAN0JwT46H410B2D9BjG0c+zKpdjFraCVfJxaJ0d
z3dSGHTSvMSEXoKF8S97rkDnGTyck68gQxyerWMCYhlQk121nv5ggy8dlR6aRb1V
OeGd81n3vyX7DHD5sPRmRW2Vfn8BNTGj47cbL1JeRjJfFePx2RhD34l/hjxx0WuKA
3mY9tkHPdCPC9kKe3FRTIrr3ndnUNrRSxmr5iqgxRzTFE2mPs9H1uTKeXWsuVc9b
vVmBe0u1ZRzSKUWlKpZyj/lygD8FhPiDMBxYfn40NwHi3c1Rshnqh46TJvk9SWZQ
Pr4gGkxV2HBLAoIBAQDF0fis2D3nsA+JcY/c7XqjL59AC7eZRq7Afs8bZHvt7wvz
t2qvbBRxi6SWk8VPs4KqF7leVQa5H3gP4PX4s6k262BCsjT/ng4hKHZe+fAstmva
/lhfltfuw9IiNt0CCdyLRxQ64293rp8AF/+w5XGts55Ti3we3VGCPsh1/YE5wZVB
IAVwIjwUVC+m6bNtjTxICJiMNjp84XKfo46DsFkd7PH2vcgKgKHCTigxcDTSRc93
UirLVfBYe30YiXS0jRkdJby6CM04VZZ2bbjDvLDpQa3vY3hbxRmSQ1oY/zoCQNh6
y53JBeIpneyKlIDBHVV1DXLa6/3zC+oITilAXHBvAoIBAQCmU3N/5hGYQsnDXGL8
jedm288HaC0rZoZy0LLsu0yQKy0LveI7G05qbG0A8Lilw0xghV5ndw4WgBeY9aiG
q/2x5ADu27owuwuQrlb1T7MT8UpASQrrjLxhAY2ivGzwxVvcglWvFZVnwGkeVc25
5j+UPIk/7i7AuJNxf4LPVxGKc9217GkqpqE1cjrC25NHT98prB7wEre9bEisD0l7
fePw7eQ0kX0PsM34uHpWSPLbgm08D20cq4JyXfntiD+SwK+zaRYboJk93w0hVESg
pdk11PN8LwLba8bUYzcZ9Fqsj/eIepgkpQbxoc9lcByxhKVIPHgB37JNhiJ7/+tr
EzrdAoIBAQC5jftClR/9Ag28UQd+RekmeAZMol1VwSVHcXgHE0aI87c4Y9UYBBLM
0WI315QPXQ9JSEssn8JAU06TL8S/CmFQG00P3JQ+ssXxGxYgIiqPikoGJqzzC+yq
KWHI6cXFX9Rie3NPRAZVBdQV8/egV5WMB7QrUQBZ7HrPp1yb3yLGMs8QufBY31Ri
RMmXC6Qf8HLtFaevMQN2LvGuC+jrtQAbDEijKtbG8Rz/b8ixSHAJ6YyZMrXMH8QN
k4ybB3FeDrDqjFSIKPcptGScy36VICjKGctN/JljExcNkVWBy8Nh+gWFlhf0iNgA
SEC00NrPy9JE4DiQRbLMx4NzWjvnr5vF
-----END PRIVATE KEY-----

```

Figura 8: Chave gerada

```
root@leandrocgsl:/home# mkdir -p /docker_data/images/
```

Figura 9: Criar um diretório p/ armazenar as imagens

```
root@leandrocgsl:/home# docker search registry
```

NAME	DESCRIPTION	STARS	OFFICIAL	AUTOMATED
registry	The Docker Registry 2.0 implementation for s...	2747	[OK]	
distribution/registry	WARNING: Not the registry official image!!! ...	58		[OK]
stefanscherrer/registry-windows	Containerized docker registry for Windows Se...	27		
budry/registry-arm	Docker registry build for Raspberry PI 2 and...	18		
deis/registry	Docker image registry for the Deis open sour...	12		
sixeyed/registry	Docker Registry 2.6.0 running on Windows - N...	8		
anoxis/registry-cli	You can list and delete tags from your priva...	8		[OK]
jc21/registry-ui	A nice web interface for managing your Docke...	5		
allingeek/registry	A specialization of registry:2 configured fo...	4		[OK]
pallet/registry-swift	Add swift storage support to the official do...	4		[OK]
goharbor/registry-photon		2		
webhippie/registry	Docker images for Docker Registry	1		[OK]
ibmcom/registry	Docker Image for IBM Cloud private-CE (Commu...	1		
conjurinc/registry-oauth-server	Docker registry authn/authz server backed by...	1		
metadata/registry	Metadata Registry is a tool which helps you ...	1		[OK]
gisjedi/registry-proxy	Reverse proxy of registry mirror image gisje...	0		
kontena/registry	Kontena Registry	0		
ghmlee/registrybot	registrybot	0		[OK]
lorieri/registry-ceph	Ceph Rados Gateway (and any other S3 compati...	0		
upmcenterprises/registry-creds		0		
dwpdigital/registry-image-resource	Concourse resource type	0		
concourse/registry-image-resource		0		
convex/registry		0		
zoined/registry		0		
lobanovsky/registry-factory	Private Docker registry based on registry:2	0		

```
root@leandrocgsl:/home#
```

Figura 10: Ao executar o comando, será exibido uma lista do registries do docker. Será utilizada a oficial.

docker search registry

```

root@leandrocgisi:/home# docker run -d -p 5000:5000 \
> -v /docker_data/images:/var/lib/registry \
> -v /docker_data/certs:/certs \
> -e REGISTRY_HTTP_TLS_CERTIFICATE=/certs/domain.crt \
> -e REGISTRY_HTTP_TLS_KEY=/certs/domain.key \
> --restart on-failure \
> --name myregistry \
> registry
Unable to find image 'registry:latest' locally
latest: Pulling from library/registry
c87736221ed0: Pull complete
1cc8e0bb44df: Pull complete
54d33bcb37f5: Pull complete
e8afc091c171: Pull complete
b4541fd3dbb6: Pull complete
Digest: sha256:8004747f1e8cd820a148fb7499d71a76d45ff66bac6a29129bfbdfdc0154d146
Status: Downloaded newer image for registry:latest
efd686b04e8626ac21112e2f8702b628ca7af2c460b955dcdad9693cf7ff04ac
root@leandrocgisi:/home# docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED             STATUS              PORTS              NAMES
efd686b04e86        registry           "/entrypoint.sh /etc-"  13 seconds ago     Up 12 seconds      0.0.0.0:5000->5000/tcp   myregistry
root@leandrocgisi:/home#

```

```

docker run -d -p 5000:5000 \
-v /docker_data/images:/var/lib/registry \
-v /docker_data/certs:/certs \
-e REGISTRY_HTTP_TLS_CERTIFICATE=/certs/domain.crt \
-e REGISTRY_HTTP_TLS_KEY=/certs/domain.key \
--restart on-failure \
--name myregistry \
registry

```

```

registry        latest        f32a97de94e1        8 months ago        25.8MB
root@leandrocgisi:/home# docker tag nginx localhost:5000/my-nginx
root@leandrocgisi:/home# docker images
REPOSITORY          TAG                IMAGE ID            CREATED             SIZE
nginx                latest            540a289bab6c       2 weeks ago        126MB
localhost:5000/my-nginx latest            540a289bab6c       2 weeks ago        126MB
registry             latest            f32a97de94e1       8 months ago       25.8MB
root@leandrocgisi:/home#

```



```

registry          latest          f32a97de94e1      8 months ago      25.8MB
root@leandrocgsl:/home# docker tag nginx localhost:5000/my-nginx
root@leandrocgsl:/home# docker images
REPOSITORY        TAG          IMAGE ID           CREATED            SIZE
nginx             latest       540a289bab6c      2 weeks ago       126MB
localhost:5000/my-nginx latest       540a289bab6c      2 weeks ago       126MB
registry          latest       f32a97de94e1      8 months ago      25.8MB
root@leandrocgsl:/home# docker push localhost:5000/my-nginx
The push refers to repository [localhost:5000/my-nginx]
a89b8f05da3a: Pushed
6eaad811af02: Pushed
b67d19e65ef6: Pushed
latest: digest: sha256:f56b43e9913cef097f246d65119df4eda1d61670f7f2ab720831a01f66f6ff9c size: 948
root@leandrocgsl:/home# ls -lia /

```

ls -lia /docker_data/images/docker/registry/v2/repositories/

```

nginx             latest       540a289bab6c      2 weeks ago       126MB
localhost:5000/my-nginx latest       540a289bab6c      2 weeks ago       126MB
registry          latest       f32a97de94e1      8 months ago      25.8MB
root@leandrocgsl:/home# docker push localhost:5000/my-nginx
The push refers to repository [localhost:5000/my-nginx]
a89b8f05da3a: Pushed
6eaad811af02: Pushed
b67d19e65ef6: Pushed
latest: digest: sha256:f56b43e9913cef097f246d65119df4eda1d61670f7f2ab720831a01f66f6ff9c size: 948
root@leandrocgsl:/home# ls -lia /docker_data/images/docker/registry/v2/repositories/
total 12
426097 drwxr-xr-x 3 root root 4096 Nov  7 19:55 .
426096 drwxr-xr-x 4 root root 4096 Nov  7 19:55 ..
426098 drwxr-xr-x 5 root root 4096 Nov  7 19:55 my-nginx
root@leandrocgsl:/home#

```