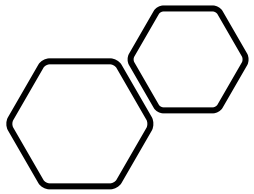
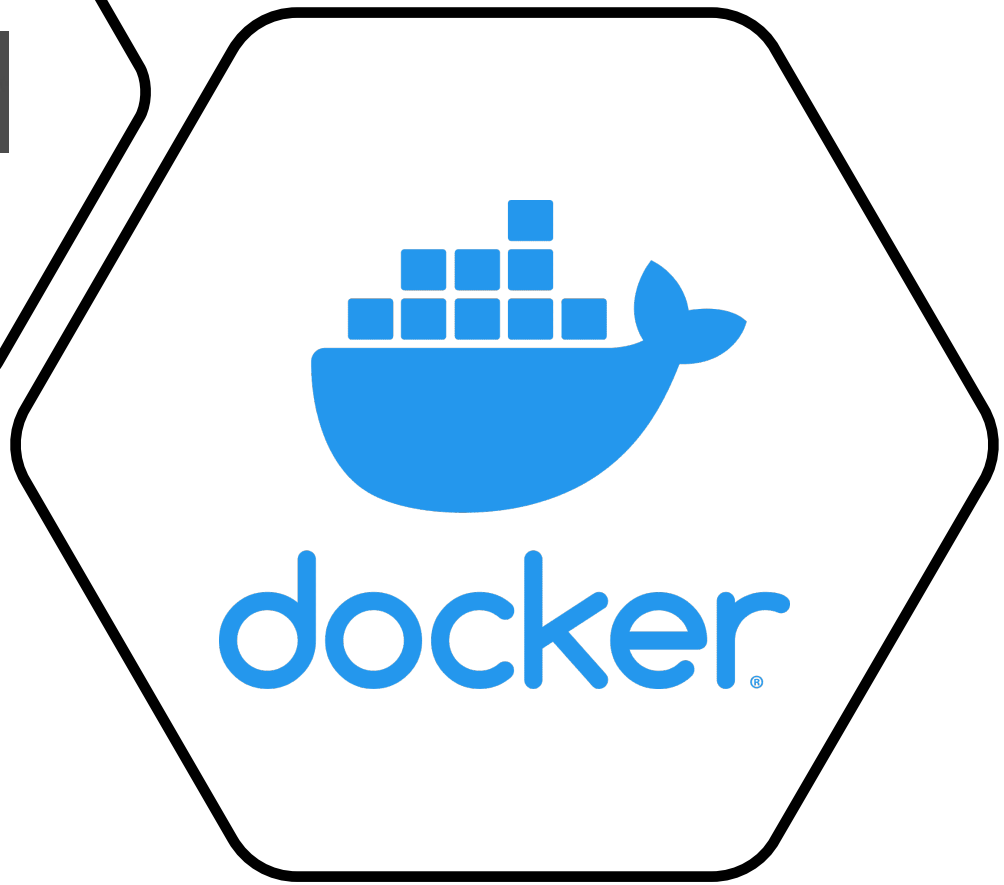




Network Monitoring with smokeping

Docker environment made it easy to run ...

Schumacher Neto

Presentation

AOPF & AONOG 2022

" All the hassle for a **PING !!!!!** "

- Not about: protocols and tools technicalities

- It is about: quick troubleshooting deployment tool

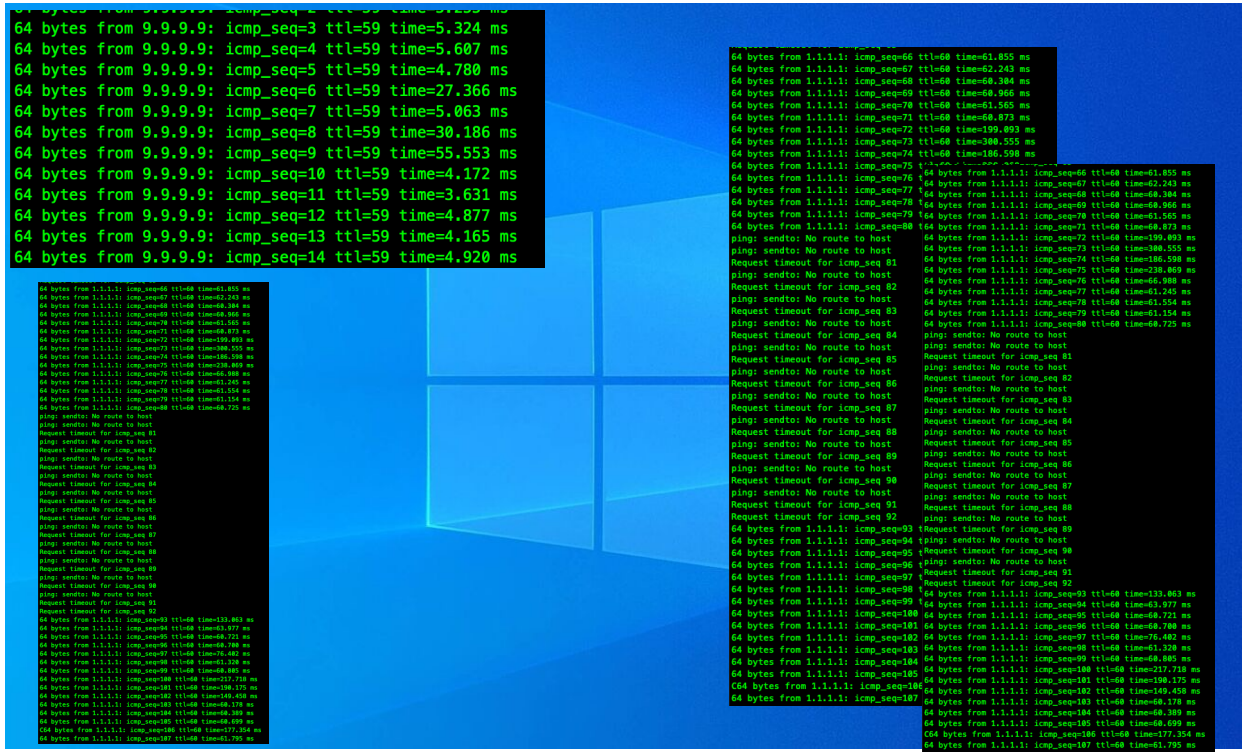
Ping

Widely used to test destination availability

Measures RTT between source and destination

Show packet loss and jitter

Source sends echo request ”ping” and receives echo reply ”pong” from destination

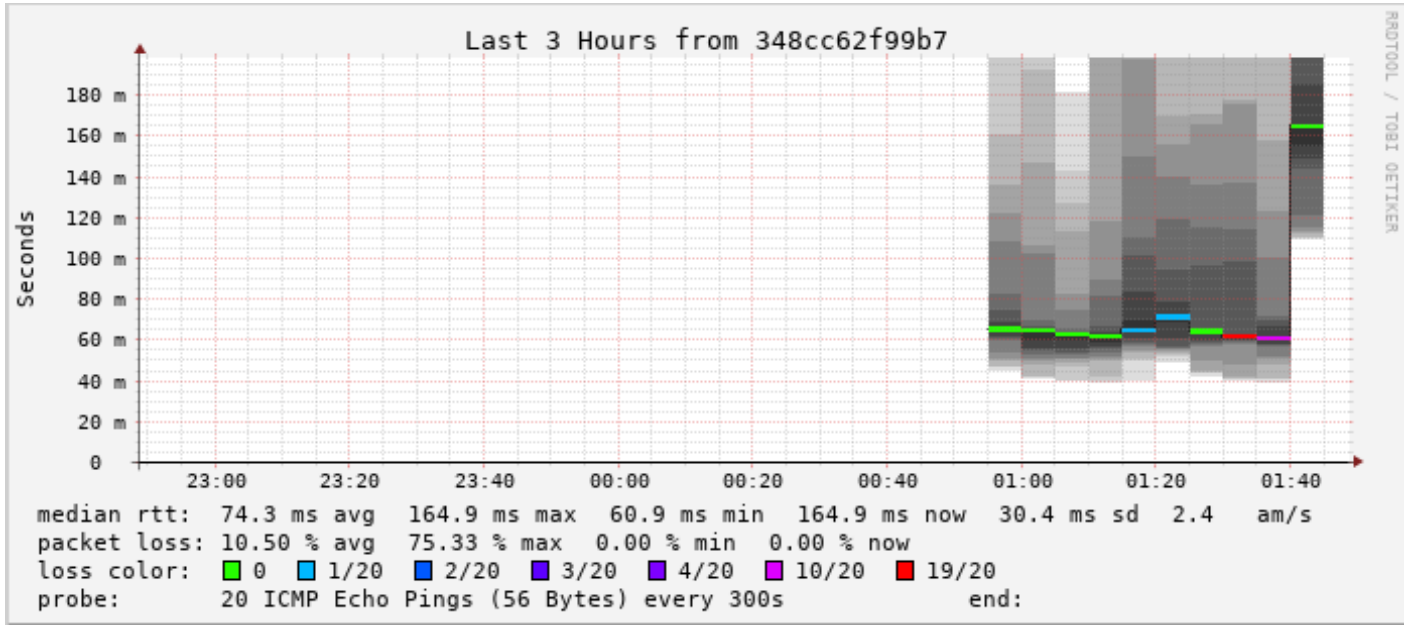


Smokeping keeps track of your network latency with amazing interactive graph explorer. Smokeping “ping” multiple servers from multiple locations around the world and it also keeps track of historical data

AOPF & AONOG 2022

Smokeping

```
64 bytes from 1.1.1.1: icmp_seq=66 ttl=60 time=61.855 ms
64 bytes from 1.1.1.1: icmp_seq=67 ttl=60 time=62.243 ms
64 bytes from 1.1.1.1: icmp_seq=68 ttl=60 time=60.304 ms
64 bytes from 1.1.1.1: icmp_seq=69 ttl=60 time=60.966 ms
64 bytes from 1.1.1.1: icmp_seq=70 ttl=60 time=61.565 ms
64 bytes from 1.1.1.1: icmp_seq=71 ttl=60 time=60.873 ms
64 bytes from 1.1.1.1: icmp_seq=72 ttl=60 time=199.093 ms
64 bytes from 1.1.1.1: icmp_seq=73 ttl=60 time=300.555 ms
64 bytes from 1.1.1.1: icmp_seq=74 ttl=60 time=186.598 ms
64 bytes from 1.1.1.1: icmp_seq=75 ttl=60 time=238.069 ms
64 bytes from 1.1.1.1: icmp_seq=76 ttl=60 time=66.988 ms
64 bytes from 1.1.1.1: icmp_seq=77 ttl=60 time=61.245 ms
64 bytes from 1.1.1.1: icmp_seq=78 ttl=60 time=61.554 ms
64 bytes from 1.1.1.1: icmp_seq=79 ttl=60 time=61.154 ms
64 bytes from 1.1.1.1: icmp_seq=80 ttl=60 time=60.725 ms
ping: sendto: No route to host
ping: sendto: No route to host
Request timeout for icmp_seq 81
ping: sendto: No route to host
Request timeout for icmp_seq 82
ping: sendto: No route to host
Request timeout for icmp_seq 83
ping: sendto: No route to host
Request timeout for icmp_seq 84
ping: sendto: No route to host
Request timeout for icmp_seq 85
ping: sendto: No route to host
Request timeout for icmp_seq 86
ping: sendto: No route to host
Request timeout for icmp_seq 87
ping: sendto: No route to host
Request timeout for icmp_seq 88
ping: sendto: No route to host
Request timeout for icmp_seq 89
ping: sendto: No route to host
Request timeout for icmp_seq 90
ping: sendto: No route to host
Request timeout for icmp_seq 91
Request timeout for icmp_seq 92
64 bytes from 1.1.1.1: icmp_seq=93 ttl=60 time=133.063 ms
64 bytes from 1.1.1.1: icmp_seq=94 ttl=60 time=63.977 ms
64 bytes from 1.1.1.1: icmp_seq=95 ttl=60 time=60.721 ms
64 bytes from 1.1.1.1: icmp_seq=96 ttl=60 time=60.700 ms
64 bytes from 1.1.1.1: icmp_seq=97 ttl=60 time=76.402 ms
64 bytes from 1.1.1.1: icmp_seq=98 ttl=60 time=61.320 ms
64 bytes from 1.1.1.1: icmp_seq=99 ttl=60 time=60.805 ms
64 bytes from 1.1.1.1: icmp_seq=100 ttl=60 time=217.718 ms
64 bytes from 1.1.1.1: icmp_seq=101 ttl=60 time=190.175 ms
64 bytes from 1.1.1.1: icmp_seq=102 ttl=60 time=149.458 ms
64 bytes from 1.1.1.1: icmp_seq=103 ttl=60 time=60.178 ms
64 bytes from 1.1.1.1: icmp_seq=104 ttl=60 time=60.389 ms
64 bytes from 1.1.1.1: icmp_seq=105 ttl=60 time=60.699 ms
C64 bytes from 1.1.1.1: icmp_seq=106 ttl=60 time=177.354 ms
64 bytes from 1.1.1.1: icmp_seq=107 ttl=60 time=61.795 ms
```

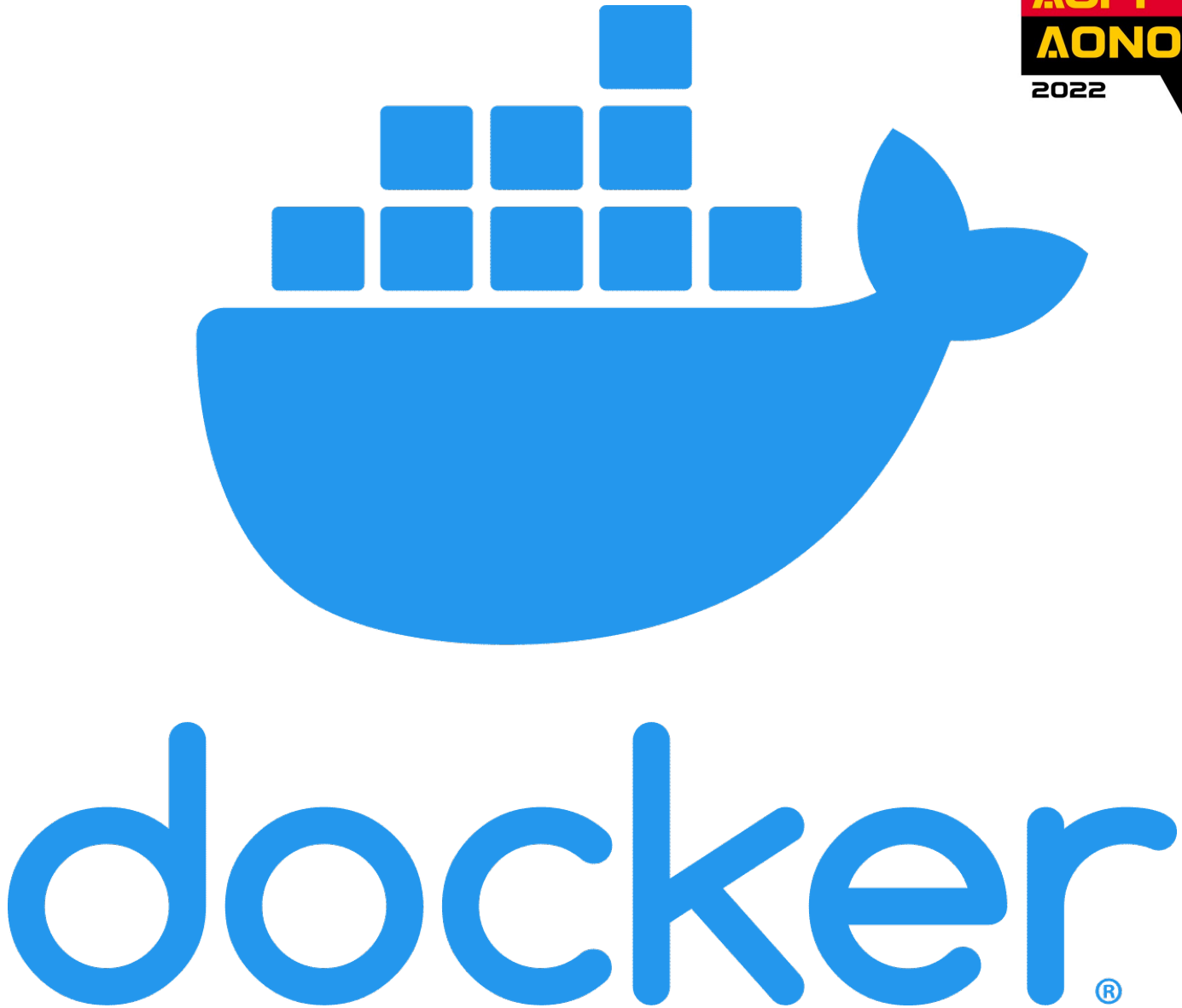


Where to start ?

- Install **Docker** environment
- Clone Github repository
- Edit Targets *(optional)*
- Run container

Docker ?

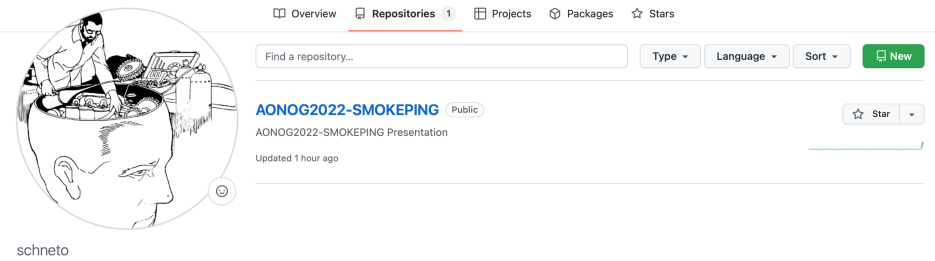
- Docker platform provides the ability to package and run an application in a loosely isolated environment called **a container**. The isolation and security allows you to run many containers simultaneously on a given host.
- Install Docker environment at your localhost https://www.docker.com/

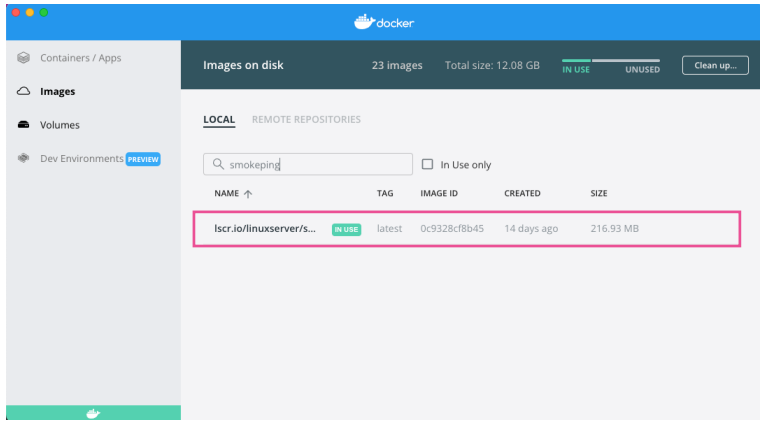


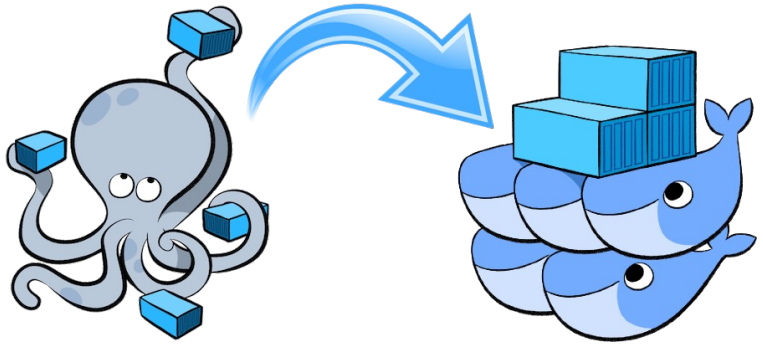
Clone Repository

git clone https://github.com/schneto/AONOG2022-SMOKEPING.git

```
                % git clone https://github.com/schneto/AONOG2022-SMOKEPING.git
Cloning into 'AONOG2022-SMOKEPING'...
remote: Enumerating objects: 51, done.
remote: Counting objects: 100% (51/51), done.
remote: Compressing objects: 100% (37/37), done.
remote: Total 51 (delta 21), reused 42 (delta 12), pack-reused 0
Receiving objects: 100% (51/51), 133.15 KiB | 136.00 KiB/s, done.
Resolving deltas: 100% (21/21), done.
```







linuxserver/smokeping SPONSORED OSS

By linuxserver.io • Updated 13 days ago

A Smokeping container, brought to you by LinuxServer.io.

Image

Run Container

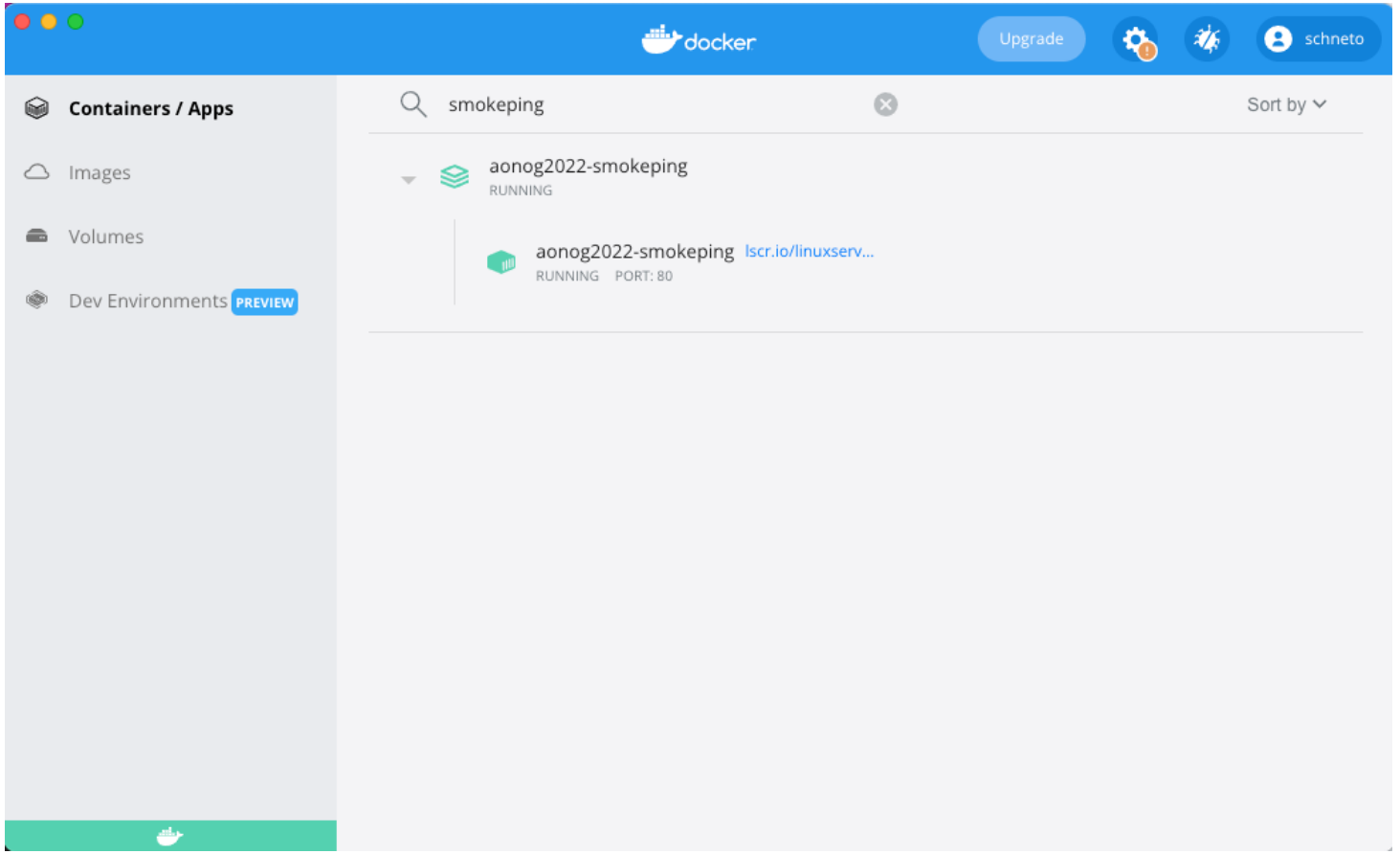
docker-compose up -d

```
AONOG2022-SMOKEPING % docker ps
CONTAINER ID   IMAGE                                COMMAND   CREATED          STATUS          PORTS                NAMES
1cf4d14bfc93   lscr.io/linuxserver/smokeping:latest   "/init"   31 minutes ago   Up 31 minutes   0.0.0.0:80->80/tcp   aonog2022-smokeping
```

GUI / CLI Verification

Pull image from docker hub repository

perform multiple checks for a given service and returns a simple pass or fail based response.

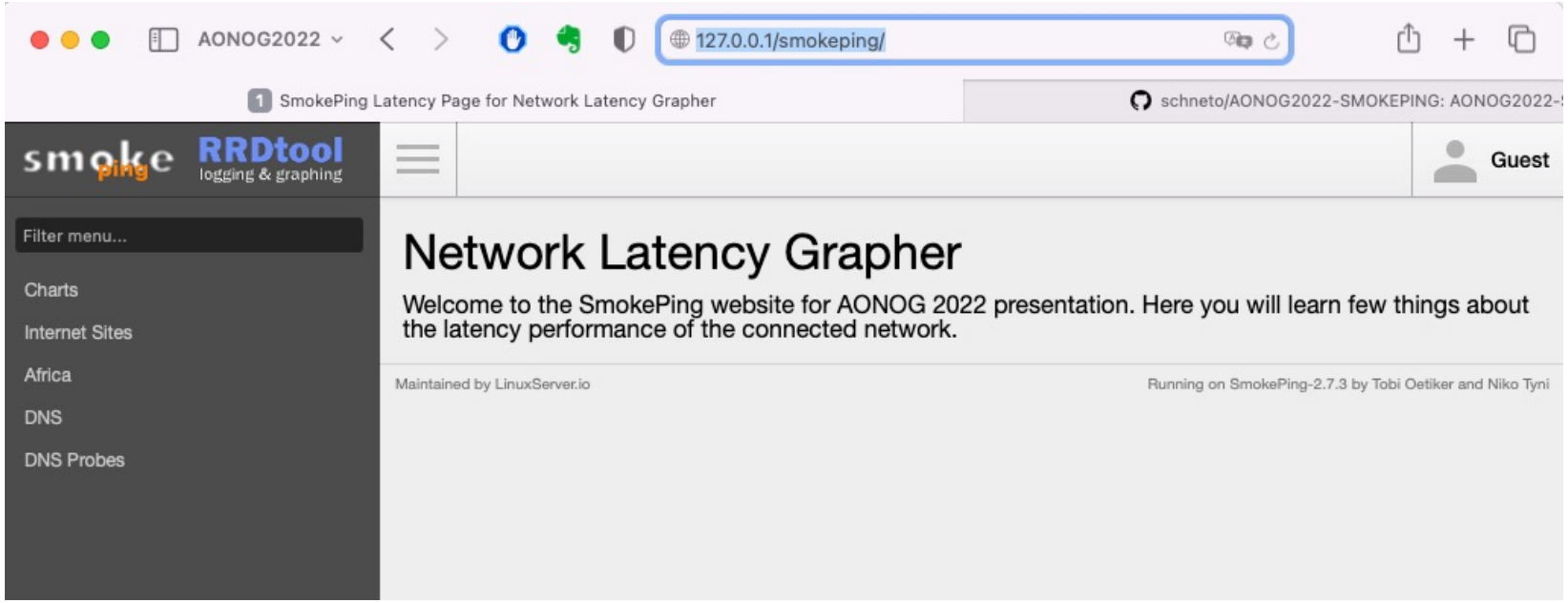



```
AONOG2022-SMOKEPING % docker ps
CONTAINER ID   IMAGE                                  COMMAND   CREATED         STATUS         PORTS                  NAMES
99f3282be323   lscr.io/linuxserver/smokeping:latest   "/init"   4 seconds ago   Up 4 seconds   0.0.0.0:80->80/tcp     aonog2022-smokeping
```

Running Smokeping

Open and navigate to :

http://127.0.0.1/smokeping/




LIVE DEMO

References

Github repository:

https://github.com/schumacherneto/AONOG2022-SMOKEPING

Smokeping website:

https://oss.oetiker.ch/smokeping/index.en.html

Docker Hub container image:

https://hub.docker.com/r/linuxserver/smokeping

Public DNS info:

https://public-dns.info/nameserver/ao.html