

INSTITUTO FEDERAL
SANTA CATARINA

MINISTÉRIO DA EDUCAÇÃO
SECRETARIA DE EDUCAÇÃO PROFISSIONAL E TECNOLÓGICA
INSTITUTO FEDERAL DE EDUCAÇÃO, CIÊNCIA E TECNOLOGIA DE SANTA CATARINA
CURSO DE ENGENHARIA DE TELECOMUNICAÇÕES - CÂMPUS SÃO JOSÉ

RELATÓRIO TÉCNICO

1º LABORATÓRIO REMOTO

Arthur Cadore Matuella Barcella

TAREFA:

Caso queira, instale o Imunes no seu Ubuntu 18.04, 20.04 ou 22.04

```
sudo apt install openvswitch-switch docker.io xterm wireshark \
make imagemagick tk tcllib util-linux
git clone https://github.com/imunes/imunes.git
cd imunes
sudo make install
sudo imunes -p
sudo apt install socat
sudo apt-get _imunes install firefox-esr socat
sudo imunes &
```

21/08/2022



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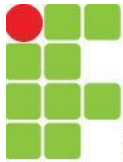
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DESENVOLVIMENTO

Obs: Wireshark já está instalado na máquina, dessa maneira, não o adicionei ao comando.

```
cadore@cadore-ac:~$ sudo apt install openvswitch-switch docker.io xterm make imagemagick tk tcllib util-linux
[sudo] password for cadore:
Lendo listas de pacotes... Pronto
Construindo árvore de dependências
Lendo informação de estado... Pronto
make is already the newest version (4.2.1-1.2).
util-linux is already the newest version (2.34-0.1ubuntu9.3).
The following additional packages will be installed:
  bridge-utils containerd git git-man imagemagick-6-common imagemagick-6.q16
  liberror-perl libilmbase24 liblqr-1-0 libmagickcore-6.q16-6
  libmagickcore-6.q16-6-extra libmagickwand-6.q16-6 libnetpbm10 libopenexr24
  libtcl8.6 libtk8.6 libunbound8 libutempter0 netpbm openvswitch-common pigz
  python3-openvswitch python3-sortedcontainers runc tcl tcl8.6 tk8.6
  ubuntu-fan
Pacotes sugeridos:
  aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-doc rinse
  zfs-fuse | zfsutils git-daemon-run | git-daemon-sysvinit git-doc git-el
  git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn imagemagick-doc
  autotrace enscript ffmpeg gimp gnuplot grads graphviz hp2xx html2ps
  libwmf-bin mplayer povray radiance texlive-base-bin transfig ufrw-batch
  inkscape libjxr-tools openvswitch-doc python-sortedcontainers-doc
  tcl-tclreadline tcllib-critcl xfonts-cyrillic
Os NOVOS pacotes a seguir serão instalados:
  bridge-utils containerd docker.io git git-man imagemagick
  imagemagick-6-common imagemagick-6.q16 liberror-perl libilmbase24 liblqr-1-0
  libmagickcore-6.q16-6 libmagickcore-6.q16-6-extra libmagickwand-6.q16-6
  libnetpbm10 libopenexr24 libtcl8.6 libtk8.6 libunbound8 libutempter0 netpbm
  openvswitch-common openvswitch-switch pigz python3-openvswitch
  python3-sortedcontainers runc tcl tcl8.6 tcllib tk tk8.6 ubuntu-fan xterm
0 pacotes atualizados, 34 pacotes novos instalados, 0 a serem removidos e 1 não atualizados.
É preciso baixar 88,7 MB de arquivos.
Depois desta operação, 435 MB adicionais de espaço em disco serão usados.
Você quer continuar? [S/n] S
```

```
cadore@cadore-ac:~$ git clone https://github.com/imunes/imunes.git
Cloning into 'imunes'...
remote: Enumerating objects: 2974, done.
remote: Total 2974 (delta 0), reused 0 (delta 0), pack-reused 2974
Receiving objects: 100% (2974/2974), 1.23 MiB | 2.59 MiB/s, done.
Resolving deltas: 100% (2031/2031), done.
```



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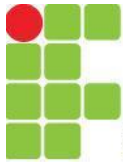
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```
cadore@cadore-ac:~/imunes$ ls -l
total 96
drwxrwxr-x 2 cadore cadore 4096 ago 21 23:35 config
-rw-rw-r-- 1 cadore cadore 1315 ago 21 23:35 COPYRIGHT
-rw-rw-r-- 1 cadore cadore 6516 ago 21 23:35 GNUmakefile
drwxrwxr-x 2 cadore cadore 4096 ago 21 23:35 gui
-rw-rw-r-- 1 cadore cadore 5025 ago 21 23:35 helpers.tcl
drwxrwxr-x 5 cadore cadore 4096 ago 21 23:35 icons
-rwxrwxr-x 1 cadore cadore 1797 ago 21 23:35 imunes
-rw-rw-r-- 1 cadore cadore 8939 ago 21 23:35 imunes.tcl
drwxrwxr-x 2 cadore cadore 4096 ago 21 23:35 legacy
-rw-rw-r-- 1 cadore cadore 77 ago 21 23:35 Makefile
drwxrwxr-x 2 cadore cadore 4096 ago 21 23:35 nodes
drwxrwxr-x 5 cadore cadore 4096 ago 21 23:35 packages
-rw-rw-r-- 1 cadore cadore 1735 ago 21 23:35 README
-rw-rw-r-- 1 cadore cadore 8056 ago 21 23:35 README.md
drwxrwxr-x 2 cadore cadore 4096 ago 21 23:35 runtime
drwxrwxr-x 2 cadore cadore 4096 ago 21 23:35 scripts
drwxrwxr-x 6 cadore cadore 4096 ago 21 23:35 src
-rw-rw-r-- 1 cadore cadore 514 ago 21 23:35 TODO.list
-rw-rw-r-- 1 cadore cadore 89 ago 21 23:35 VERSION
```

```
cadore@cadore-ac:~/imunes$ sudo make install
rm -rf /usr/local/lib/imunes
for file in imunes pkg_imunes himage.linux vlink.tcl vlink apk_imunes hcp.linux
do
    rm -f /usr/local/bin/${file}; \
done ;
rm -rf /usr/local/etc/rc.d/imunes-service.sh
To remove startup topologies, remove /var/imunes-service
mkdir -p /usr/local/lib/imunes
cp COPYRIGHT README VERSION /usr/local/lib/imunes
ROOTDIR=/usr/local sh scripts/update_version.sh
mkdir -p /usr/local/bin
```



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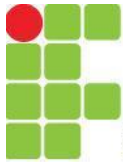
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```
cadore@cadore-ac:~/imunes$ sudo imunes -p
Using default tag: latest
latest: Pulling from imunes/template
e79bb959ec00: Pull complete
58bef49ed905: Pull complete
d630adf7f793: Pull complete
3ecb8c89f70f: Pull complete
a203e225a4f8: Pull complete
1d5355ef7dbd: Pull complete
111c773bc8de: Pull complete
Digest: sha256:2df4a217f4e0be31c231c7682c1a9be1a99d299e6f09ef64a1aa4f95cd0b54e5
Status: Downloaded newer image for imunes/template:latest
docker.io/imunes/template:latest
```

```
cadore@cadore-ac:~/imunes$ sudo imunes -p
Using default tag: latest
latest: Pulling from imunes/template
e79bb959ec00: Pull complete
58bef49ed905: Pull complete
d630adf7f793: Pull complete
3ecb8c89f70f: Pull complete
a203e225a4f8: Pull complete
1d5355ef7dbd: Pull complete
111c773bc8de: Pull complete
Digest: sha256:2df4a217f4e0be31c231c7682c1a9be1a99d299e6f09ef64a1aa4f95cd0b54e5
Status: Downloaded newer image for imunes/template:latest
docker.io/imunes/template:latest
```



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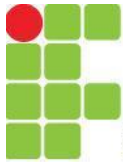
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```
cadore@cadore-ac:~/imunes$ sudo apt-get imunes install firefox-esr socat
Changing docker image 'imunes/template'.
Ign:1 http://deb.debian.org/debian stretch InRelease
Get:2 http://security.debian.org/debian-security stretch/updates InRelease [59.1 kB]
Get:3 http://deb.debian.org/debian stretch-updates InRelease [93.6 kB]
Get:4 http://deb.debian.org/debian stretch Release [118 kB]
Get:5 http://security.debian.org/debian-security stretch/updates/non-free amd64 Packages [14.1 kB]
Get:6 http://security.debian.org/debian-security stretch/updates/main amd64 Packages [782 kB]
Get:7 http://deb.debian.org/debian stretch Release.gpg [3177 B]
Get:8 http://security.debian.org/debian-security stretch/updates/contrib amd64 Packages [1760 B]
Get:9 http://deb.debian.org/debian stretch/contrib amd64 Packages [50.7 kB]
Get:10 http://deb.debian.org/debian stretch/non-free amd64 Packages [78.3 kB]
Get:11 http://deb.debian.org/debian stretch/main amd64 Packages [7080 kB]
Fetched 8280 kB in 2s (2976 kB/s)
Reading package lists...
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  adwaita-icon-theme at-spi2-core dbus dconf-gsettings-backend dconf-service
  fontconfig fontconfig-config fonts-dejavu-core glib-networking
  glib-networking-common glib-networking-services gsettings-desktop-schemas
  gtk-update-icon-cache hicolor-icon-theme i965-va-driver libapparmor1
  libatk-bridge2.0-0 libatk1.0-0 libatk1.0-data libatspi2.0-0 libavahi-client3
  libavahi-common-data libavahi-common3 libavcodec57 libavutil55
  libcairo-gobject2 libcairo2 libcolor2 libcroco3 libcrysalhd3 libcups2
  libdatriel libdbus-1-3 libdbus-glib-1-2 libdconf1 libdrm-amdgpu1
  libdrm-intel1 libdrm-nouveau2 libdrm-radeon1 libdrm2 libegl1-mesa libepoxy0
  libfontconfig1 libfreetype6 libgbm1 libgdk-pixbuf2.0-0
  libgdk-pixbuf2.0-common libgl1-mesa-dri libgl1-mesa-glx libglapi-mesa
  libglib2.0-0 libglib2.0-data libgomp1 libgraphite2-3 libgsm1 libgtk-3-0
  libgtk-3-bin libgtk-3-common libharfbuzz0b libjbig0 libjpeg62-turbo
  libjson-glib-1.0-0 libjson-glib-1.0-common liblcms2-2 libllvm3.9 libmp3lame0
```



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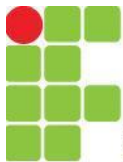
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```
Setting up libpango-1.0-0:amd64 (1.40.5-1) ...  
Setting up libwayland-egl1-mesa:amd64 (13.0.6-1+b2) ...  
Setting up libatk-bridge2.0-0:amd64 (2.22.0-2) ...  
Setting up librest-0.7-0:amd64 (0.8.0-2) ...  
Setting up libxxf86vm1:amd64 (1:1.1.4-1+b2) ...  
Setting up libxrandr2:amd64 (2:1.5.1-1) ...  
Setting up libva-x11-1:amd64 (1.7.3-2) ...  
Setting up libxi6:amd64 (2:1.7.9-1) ...  
Setting up libcairo2:amd64 (1.14.8-1+deb9u1) ...  
Setting up libxinerama1:amd64 (2:1.1.3-1+b3) ...  
Setting up libxdamage1:amd64 (1:1.1.4-2+b3) ...  
Setting up libavutil55:amd64 (7:3.2.18-0+deb9u1) ...  
Setting up mesa-vdpau-drivers:amd64 (13.0.6-1+b2) ...  
Setting up libcairo-gobject2:amd64 (1.14.8-1+deb9u1) ...  
Setting up libswresample2:amd64 (7:3.2.18-0+deb9u1) ...  
Setting up libxst6:amd64 (2:1.2.3-1) ...  
Setting up libpangoft2-1.0-0:amd64 (1.40.5-1) ...  
Setting up libgll-mesa-glx:amd64 (13.0.6-1+b2) ...  
Setting up libtheora0:amd64 (1.1.1+dfsg.1-14+b1) ...  
Setting up libvdpau-va-gll:amd64 (0.4.2-1) ...  
Setting up at-spi2-core (2.22.0-6+deb9u1) ...  
Setting up libavcodec57:amd64 (7:3.2.18-0+deb9u1) ...  
Setting up libpangocairo-1.0-0:amd64 (1.40.5-1) ...  
Setting up vdpau-driver-all:amd64 (1.1.1-6) ...  
Setting up librsvg2-2:amd64 (2.40.21-0+deb9u1) ...  
Setting up librsvg2-common:amd64 (2.40.21-0+deb9u1) ...  
Setting up adwaita-icon-theme (3.22.0-1+deb9u1) ...  
update-alternatives: using /usr/share/icons/Adwaita/cursor.theme to provide /usr/share/icons/default/index.theme (x-cursor-theme) in auto mode  
Setting up libgtk-3-0:amd64 (3.22.11-1) ...  
Setting up libgtk-3-bin (3.22.11-1) ...  
Setting up firefox-esr (91.11.0esr-1+deb9u1) ...  
update-alternatives: using /usr/bin/firefox-esr to provide /usr/bin/x-www-browser (x-www-browser) in auto mode  
update-alternatives: using /usr/bin/firefox-esr to provide /usr/bin/gnome-www-browser (gnome-www-browser) in auto mode  
Processing triggers for libc-bin (2.24-11+deb9u4) ...  
Processing triggers for libgdk-pixbuf2.0-0:amd64 (2.36.5-2+deb9u2) ...  
Reading package lists...  
Building dependency tree...  
Reading state information...  
Reading package lists...  
Building dependency tree...  
Reading state information...  
0 upgraded, 0 newly installed, 0 to remove and 102 not upgraded.  
sha256:dc11e8c0a94c79f4b23349abe5b004d4e3ec4acb5827c7440c4738377eaa7fb3  
8ac19f6b77ca3d46c1b2c3d5c15785394975efa3dfdae2c6e5ab0376ec92  
8ac19f6b77ca3d46c1b2c3d5c15785394975efa3dfdae2c6e5ab0376ec92
```

```
cadore@cadore-ac:~/imunes$ sudo imunes &  
[1] 14534
```

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