

Guia de Instalação Greenbone Community Edition (Building From Source)

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1. Configurações do Ambiente e Pré-requisitos

Este tutorial foi elaborado com base no processo oficial de construção a partir do código-fonte (Building from Source) mantido pela Greenbone. Seu objetivo é fornecer um roteiro modular e objetivo para a instalação da Greenbone Community Edition, com ênfase na clareza de cada etapa e no entendimento do fluxo de instalação do início ao fim.

Esta documentação foi projetada para servir como uma referência padronizada no contexto dos ambientes do PoP (Ponto de Presença da RNP), garantindo uniformidade na instalação da solução de análise de vulnerabilidades em dispositivos que atendam aos requisitos mínimos definidos. O conteúdo foi cuidadosamente estruturado para privilegiar a rastreabilidade dos comandos, a separação lógica por componentes, e a coerência com práticas recomendadas de compilação e provisionamento de serviços.

Nível de dificuldade: intermediário a avançado

Recomenda-se que o executor tenha familiaridade com ambiente Linux, compilação de pacotes a partir do código-fonte, controle de permissões e administração de serviços via systemd.

1.1 Ambiente utilizado para testes

A instalação foi realizada em um ambiente controlado com as seguintes características mínimas:

Recurso	Configuração/Versão
CPU	4 núcleos físicos
Memória RAM	6 GB
SWAP	8 GB
Armazenamento livre	60 GB
Sistema operacional	Ubuntu 22.04 LTS
Acesso privilegiado	Usuário com sudo habilitado

⚠ Versões diferentes do Ubuntu ou de outras distribuições Linux podem requerer ajustes nos pacotes, caminhos ou permissões. Este tutorial considera que o ambiente já possui as configurações básicas e os pacotes essenciais devidamente ajustados.

Atendidos os requisitos descritos, siga para a próxima etapa da instalação.

1.2 Versões dos componentes

Este tutorial foi validado utilizando as seguintes versões dos principais componentes do Greenbone Community Edition:

Componente	Versão
GVM Libraries	22.22.0
Greenbone Manager (gvmd)	26.0.0
PostgreSQL Adapter (pg-gvm)	22.6.9
Greenbone Security Assistant (GSA)	25.0.0
GSAD (Web Daemon)	24.3.0
openvas-smb	22.5.3
openvas-scanner	23.21.0
ospd-openvas	22.9.0
openvasd (daemon em Rust)	25.0.0

1.3 Preparação do ambiente

Passo 1 - Instale todas as bibliotecas e pacotes que serão necessários para realizar o procedimento de instalação do Greenbone.

```
sudo apt update && sudo apt install --assume-yes \
 build-essential cmake pkg-config curl wget git gnupg \
 python3 python3-pip python3-venv \
 libglib2.0-dev libgnutls28-dev libgpgme-dev libgcrypt20-dev \
 libhiredis-dev libksba-dev libpcap-dev libssh-dev libnet1-dev libldap2-dev \
  libpaho-mqtt-dev libical-dev libxml2-dev libxml2-utils libjson-glib-dev
Libcjson-dev \
 libssl-dev libcurl4-gnutls-dev libbrotli-dev libmicrohttpd-dev \
 libpq-dev postgresql postgresql-server-dev-all \
 libsnmp-dev libradcli-dev libpopt-dev libunistring-dev libbsd-dev \
 libnetfilter-queue-dev libsystemd-dev libjson-glib-dev uuid-dev \
 dpkg fakeroot bison \
 clang clang-format doxygen graphviz \
 nmap smbclient snmp socat sshpass nsis rpm xsltproc xmlstarlet zip \
 gnutls-bin qpqsm openssh-client rsync \
 gcc-mingw-w64 perl-base heimdal-multidev krb5-multidev
 python3-setuptools python3-packaging python3-wrapt \
 python3-cffi python3-psutil python3-defusedxml \
 python3-paramiko python3-redis python3-gnupg \
 python3-paho-mqtt python3-impacket \
  texlive-fonts-recommended texlive-latex-extra
 python3-lxml autoconf libtool \
 zlib1g-dev libpsl-dev \
```

```
Unpacking libradcli-dev (1.2.11-1build1) ...

Selecting previously unselected package librpmio9.

Preparing to unpack .../375-librpmio9_4.17.0+dfsg1-4build1_amd64.deb ...

Unpacking librpmio9 (4.17.0+dfsg1-4build1) ...

Selecting previously unselected package librpm9.

Preparing to unpack .../376-librpm9_4.17.0+dfsg1-4build1_amd64.deb ...

Unpacking librpm9 (4.17.0+dfsg1-4build1) ...

Selecting previously unselected package librpmbuild9.

Preparing to unpack .../377-librpmbuild9_4.17.0+dfsg1-4build1_amd64.deb ...

Unpacking librpmbuild9 (4.17.0+dfsg1-4build1) ...

Selecting previously unselected package librpmsign9.

Preparing to unpack .../378-librpmsign9_4.17.0+dfsg1-4build1_amd64.deb ...

Unpacking librpmsign9 (4.17.0+dfsg1-4build1) ...

Selecting previously unselected package librsvg2-common:amd64.

Preparing to unpack .../379-librsvg2-common_2.52.5+dfsg-3ubuntu0.2_amd64.deb ...

Unpacking librsvg2-common:amd64 (2.52.5+dfsg-3ubuntu0.2) ...

Selecting previously unselected package libsensors-dev:amd64.

Preparing to unpack .../380-libsensors-dev_1%3a3.6.0-7ubuntu1_amd64.deb ...

Unpacking libsensors-dev:amd64 (1:3.6.0-7ubuntu1) ...

Selecting previously unselected package libwrap0-dev:amd64.

Preparing to unpack .../381-libwrap0-dev_7.6.q-31build2_amd64.deb ...

Unpacking libwrap0-dev:amd64 (7.6.q-31build2) ...

Selecting previously unselected package libsmmp-dev.
```

Figura 1: Instalação de bibliotecas necessárias para o Greenbone.

Passo 2 - Realize a instalação do Rust via Snap e atualize o ambiente para utilizar a versão mais recente dos componentes.

sudo snap install rustup --classic && rustup update stable

```
info: downloading component 'cargo'
info: downloading component 'clippy'
info: downloading component 'rust-docs'
20.1 MiB / 20.1 MiB (100 %) 11.3 MiB/s in 1s ETA: 0s
info: downloading component 'rust-std'
29.5 MiB / 29.5 MiB (100 %) 11.0 MiB/s in 3s ETA: 0s
info: downloading component 'rustc'
76.3 MiB / 76.3 MiB (100 %) 11.2 MiB/s in 7s ETA: 0s
info: downloading component 'rustfmt'
info: installing component 'rustfmt'
info: installing component 'cargo'
info: installing component 'clippy'
info: installing component 'rust-docs'
20.1 MiB / 20.1 MiB (100 %) 2.4 MiB/s in 8s ETA: 0s
info: installing component 'rust-std'
29.5 MiB / 29.5 MiB (100 %) 6.4 MiB/s in 6s ETA: 0s
info: installing component 'rustc'
76.3 MiB / 76.3 MiB (100 %) 8.5 MiB/s in 12s ETA: 0s
info: installing component 'rustfmt'

stable-x86_64-unknown-linux-gnu installed - rustc 1.88.0 (6b00bc388 2025-06-23)
info: default toolchain set to 'stable-x86_64-unknown-linux-gnu'
info: self-update is disabled for this build of rustup
info: any updates to rustup will need to be fetched with your system package manager
vagrant@ubuntu2204:~∮
```

Figura 2: Finalização da configuração do rust.

Passo 3 - Instale manualmente a versão mais recente do Curl e, ao finalizar o processo de compilação, utilize o comando curl --version para verificar se a instalação foi concluída com sucesso e a versão está correta.

```
wget https://curl.se/download/curl-8.14.1.tar.gz
tar -xvzf curl-8.14.1.tar.gz
cd curl-8.14.1

./configure --with-ssl

make -j$(nproc)
sudo make install

sudo ldconfig

cd
curl --version
```

```
vagrant@ubuntu2204:~/curl-8.14.1$ sudo ldconfig
cd
curl --version
vagrant@ubuntu2204:~/curl-8.14.1$ cd
vagrant@ubuntu2204:~$ curl --version
curl 8.14.1 (x86_64-pc-linux-gnu) libcurl/8.14.1 OpenSSL/3.0.2 zlib/1.2.11 brotli/1.0.9 libidn2/2.3
.2 libpsl/0.21.0 OpenLDAP/2.5.19
Release-Date: 2025-06-04
Protocols: dict file ftp ftps gopher gophers http https imap imaps ipfs ipns ldap ldaps mqtt pop3 p
op3s rtsp smb smbs smtp smtps telnet tftp ws wss
Features: alt-svc AsynchDNS brotli HSTS HTTPS-proxy IDN IPv6 Largefile libz NTLM PSL SSL threadsafe
TLS-SRP UnixSockets
vagrant@ubuntu2204:~$
```

Figura 3: Verificação da versão atual do Curl no sistema.

Passo 4 - Crie o usuário gvm, atribua os privilégios "sudo".

```
sudo useradd -r -M -U -G sudo -s /usr/sbin/nologin gvm && sudo usermod -aG gvm
$USER
```

Passo 5 - As mudanças entrarão em vigor ao fechar o terminal ou re-logar no usuário através do comando.

```
su $USER
```

```
vagrant@ubuntu2204:~$ sudo useradd -r -M -U -G sudo -s /usr/sbin/nologin gvm
sudo usermod -aG gvm $USER
su $USER
vagrant@ubuntu2204:~$ sudo usermod -aG gvm $USER
vagrant@ubuntu2204:~$ su $USER
Password:
vagrant@ubuntu2204:~$
```

Figura 4: Criando e configurando usuário gvm e re-logando no usuário atual.

Passo 5 - Configure as variáveis do ambiente.

⚠ Caso o terminal seja fechado ou a conexão SSH interrompida, as variáveis de ambiente serão perdidas. Será necessário reconfigurá-las para continuar a instalação

```
export GVM_LIBS_VERSION=22.22.0
export GVMD_VERSION=26.0.0
export PG_GVM_VERSION=22.6.9
export GSA_VERSION=25.0.0
export GSAD_VERSION=24.3.0
export OPENVAS_SMB_VERSION=22.5.3
export OPENVAS_SCANNER_VERSION=23.21.0
export OSPD_OPENVAS_VERSION=22.9.0
export OPENVAS_DAEMON=23.21.0
export GNUPGHOME=/tmp/openvas-gnupg
export OPENVAS_GNUPG_HOME=/etc/openvas/gnupg
export INSTALL_PREFIX=/usr/Local
```

```
export PATH=$PATH:$INSTALL_PREFIX/sbin
export SOURCE_DIR=$HOME/source
mkdir -p $SOURCE_DIR
export BUILD_DIR=$HOME/build
mkdir -p $BUILD_DIR
export INSTALL_DIR=$HOME/install
mkdir -p $INSTALL_DIR
```

```
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∙
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:∼
/agrant@ubuntu2204:
vagrant@ubuntu2204:∼
vagrant@ubuntu2204:∼
vagrant@ubuntu2204:~¶
/agrant@ubuntu2204:~¶
vagrant@ubuntu2204:~¶
```

Figura 5: Configurando variáveis de ambiente.

Passo 6 - Pronto, com o ambiente devidamente preparado, siga para o próximo passo da instalação dos componentes.

2. Baixando e verificando a integridade dos arquivos

Passo 1 – Copie e cole todo o código abaixo no terminal para fazer o download do tarball e das respectivas chaves de assinatura dos pacotes do Greenbone Community Edition.

```
for module in \
  "gvm-libs:$GVM_LIBS_VERSION" \
  "gvmd:$GVMD_VERSION" \
  "pg-gvm:$PG_GVM_VERSION" \
  "gsa:$GSA_VERSION:gsa-dist" \
  "gsad:$GSAD_VERSION" \
  "openvas-smb:$OPENVAS_SMB_VERSION:v" \
  "openvas-scanner:$OPENVAS_SCANNER_VERSION:v" \
  "ospd-openvas:$OSPD_OPENVAS_VERSION:v" \
```

```
IFS=":" read -r name ver asc_type <<< "$module"</pre>
 if [[ "$asc_type" == "gsa-dist" ]]; then
   archive="gsa-dist-$ver"
   output="gsa-$ver"
src_url="https://github.com/greenbone/$name/releases/download/v$ver/$archive.t
ar.gz"
asc_url="https://github.com/greenbone/$name/releases/download/v$ver/$archive.t
ar.gz.asc"
 elif [[ "$asc_type" == "v" ]]; then
   archive="$name-$ver"
   output="$archive"
src_url="https://github.com/greenbone/$name/archive/refs/tags/v$ver.tar.gz"
asc_url="https://github.com/greenbone/$name/releases/download/v$ver/$name-v$ve
r.tar.gz.asc"
 else
   archive="$name-$ver"
   output="$archive"
src_url="https://github.com/greenbone/$name/archive/refs/tags/v$ver.tar.gz"
asc_url="https://github.com/greenbone/$name/releases/download/v$ver/$name-$ver
tar.gz.asc"
 echo "Fonte: $src_url"
 curl -fL "$src_url" -o "$SOURCE_DIR/$output.tar.gz"
 echo "Assinatura: $asc_url"
 curl -fL "$asc_url" -o "$SOURCE_DIR/$output.tar.gz.asc"
```

Figura 6: Download dos arquivos contendo o código fonte do Greenbone.

Passo 2 - Verifique se os tarballs foram baixados corretamente conferindo o conteúdo da pasta source.

Figura 7: Verificando arquivos baixados através do comando "Is".

vagrant@ubuntu2204:

Passo 3 - Para conferir se os arquivos estão funcionais, importe a chave de verificação do Greenbone.

```
curl -f -L https://www.greenbone.net/GBCommunitySigningKey.asc -o
/tmp/GBCommunitySigningKey.asc
sudo gpg --import /tmp/GBCommunitySigningKey.asc
echo "8AE4BE429B60A59B311C2E739823FAA60ED1E580:6:" | sudo gpg
--import-ownertrust
```

Figura 8: Baixando e configurando a chave de integridade do Greenbone.

Passo 4 - Em seguida, verifique a validade das assinaturas dos arquivos baixados.

```
for pkg in \
  gvm-libs-$GVM_LIBS_VERSION \
  gvmd-$GVMD_VERSION \
  pg-gvm-$PG_GVM_VERSION \
  gsa-$GSA_VERSION \
  gsad-$GSAD_VERSION \
  openvas-smb-$OPENVAS_SMB_VERSION \
  openvas-scanner-$OPENVAS_SCANNER_VERSION \
  ospd-openvas-$OSPD_OPENVAS_VERSION \
  openvas-scanner-$OPENVAS_VERSION \
  openvas-scanner-$OPENVAS_DAEMON; do
  sudo gpg --verify "$SOURCE_DIR/$pkg.tar.gz.asc" "$SOURCE_DIR/$pkg.tar.gz"
done
```

```
igpg: using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Fri 11 Apr 2025 08:56:17 AM UTC gpg: using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Tue 13 May 2025 01:51:26 PM UTC using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 08 May 2025 09:22:33 AM UTC gpg: using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 15 Jun 2023 11:28:12 AM UTC gpg: using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 03 Jul 2025 03:39:35 PM UTC using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 15 May 2025 07:03:51 AM UTC using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 15 May 2025 07:03:51 AM UTC using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 03 Jul 2025 03:39:35 PM UTC using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 03 Jul 2025 03:39:35 PM UTC using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate] gpg: Signature made Thu 03 Jul 2025 03:39:35 PM UTC using RSA key 8AE4BE429B60A59B311C2E739823FAA60ED1E580 gpg: Good signature from "Greenbone Community Feed integrity key" [ultimate]
```

Figura 9: Verificando a integridade dos arquivos de código fonte do Greenbone.

3. Compilando e Instalando os módulos

3.1 Greenbone Vulnerability Manager

O Greenbone Vulnerability Manager (GVM) é um framework de código aberto utilizado para identificar, gerenciar e reportar vulnerabilidades em sistemas e redes. Ele é composto por módulos integrados como gvmd (gerenciador central), gvm-libs (bibliotecas compartilhadas) e postgres-gvm (extensões específicas para banco de dados).

3.1.1 gvm-libs

O gvm-libs é uma biblioteca-base compartilhada entre os módulos do GVM, fornece funcionalidades comuns para comunicação, gerenciamento e tratamento de dados.

Passo 1 - Agora, com todos os arquivos baixados da etapa anterior, prossiga com a compilação e a instalação do gym-libs.

```
tar -C "$SOURCE_DIR" -xvzf "$SOURCE_DIR/gvm-libs-$GVM_LIBS_VERSION.tar.gz" &&
mkdir -p "$BUILD_DIR/gvm-libs" && cmake -S

"$SOURCE_DIR/gvm-libs-$GVM_LIBS_VERSION" -B "$BUILD_DIR/gvm-libs"
-DCMAKE_INSTALL_PREFIX="$INSTALL_PREFIX" -DCMAKE_BUILD_TYPE=Release
-DSYSCONFDIR=/etc -DLOCALSTATEDIR=/var && cmake --build "$BUILD_DIR/gvm-libs"
-j"$(nproc)" && mkdir -p "$INSTALL_DIR/gvm-libs" && cd "$BUILD_DIR/gvm-libs"
&& make DESTDIR="$INSTALL_DIR/gvm-libs" install && sudo cp -rv

"$INSTALL_DIR/gvm-libs"/* /
```

Figura 10: Instalação e transferência do gvm-lib para pasta padrão do sistema.

3.1.2 gvmd

Gerenciador central de vulnerabilidades; coordena os scans, administra relatórios e interage com o banco de dados.

Passo 2 - Continue com a compilação dos demais módulos, agora o gvmd, copie o cole o código abaixo no terminal.

```
tar -C "$SOURCE_DIR" -xvzf "$SOURCE_DIR/gvmd-$GVMD_VERSION.tar.gz" && mkdir -p
"$BUILD_DIR/gvmd" && cmake -S "$SOURCE_DIR/gvmd-$GVMD_VERSION" -B
"$BUILD_DIR/gvmd" -DCMAKE_INSTALL_PREFIX="$INSTALL_PREFIX"
-DCMAKE_BUILD_TYPE=Release -DLOCALSTATEDIR=/var -DSYSCONFDIR=/etc
-DGVM_DATA_DIR=/var -DGVM_LOG_DIR=/var/log/gvm -DGVMD_RUN_DIR=/run/gvmd
-DOPENVAS_DEFAULT_SOCKET=/run/ospd/ospd-openvas.sock
-DGVM_FEED_LOCK_PATH=/var/lib/gvm/feed-update.lock
-DLOGROTATE_DIR=/etc/logrotate.d && cmake --build "$BUILD_DIR/gvmd"
-j"$(nproc)" && mkdir -p "$INSTALL_DIR/gvmd" && cd "$BUILD_DIR/gvmd" && make
DESTDIR="$INSTALL_DIR/gvmd" install && sudo cp -rv "$INSTALL_DIR/gvmd"/*/
```

```
an1/gvm-manage-certs.1'
'/home/vagrant/install/gvmd/usr/local/share/man/man8' -> '/usr/local/share/man/man8'
'/home/vagrant/install/gvmd/usr/local/share/man/man8/gvmd.8' -> '/usr/local/share/man/man8/gvmd.8'
'/home/vagrant/install/gvmd/usr/local/share/doc' -> '/usr/local/share/doc'
'/home/vagrant/install/gvmd/usr/local/share/doc/gvm' -> '/usr/local/share/doc/gvm'
'/home/vagrant/install/gvmd/usr/local/share/doc/gvm/example-gvm-manage-certs.conf' -> '/usr/local/share/doc/gvm/example-gvm-manage-certs.conf'
'/home/vagrant/install/gvmd/usr/local/share/doc/gvm/html' -> '/usr/local/share/doc/gvm/html'
'/home/vagrant/install/gvmd/usr/local/share/doc/gvm/html/gmp.html' -> '/usr/local/share/doc/gvm/html
l/gmp.html'
'/home/vagrant/install/gvmd/usr/local/sbin/gvm-manage-certs' -> '/usr/local/bin/gvm-manage-certs'
'/home/vagrant/install/gvmd/usr/local/sbin/gvmd' -> '/usr/local/sbin/gvmd'
'/home/vagrant/install/gvmd/usr/local/lib/libgvm-pg-server.so.26.0.0' -> '/usr/local/lib/libgvm-pg-server.so.26.0.0'
'/home/vagrant/install/gvmd/usr/local/lib/libgvm-pg-server.so.26' -> '/usr/local/lib/libgvm-pg-server.so'
'/home/vagrant/install/gvmd/usr/local/lib/systemd' -> '/usr/local/lib/systemd'
'/home/vagrant/install/gvmd/usr/local/lib/systemd' -> '/usr/local/lib/systemd'
'/home/vagrant/install/gvmd/usr/local/lib/systemd/system' -> '/usr/local/lib/systemd/system'
'/home/vagrant/install/gvmd/usr/local/lib/systemd/system' -> '/usr/local/lib/systemd/system'
'/home/vagrant/install/gvmd/usr/local/lib/systemd/system/gvmd.service' -> '/usr/local/lib/systemd/system/ymd.service'
'/home/vagrant/install/gvmd/var/lib/gvm' -> '/var/lib/gvm'
'/home/vagrant/install/gvmd/var/lib/gvm' -> '/var/lib/gvm'
'/home/vagrant/install/gvmd/var/lib/gvm' -> '/var/lib/gvm/gvmd'
'/home/vagrant/install/gvmd/var/lib/gvm/gvmd' -> '/var/lib/gvm/gvmd'
```

Figura 11: Instalação e transferência do gvmd para pasta padrão do sistema.

3.1.3 postgres-gvm

Extensão do PostgreSQL para o GVM; adiciona suporte específico à estrutura de dados usada pelo gvmd.

Passo 3 - Copie e cole o código a seguir no terminal, e aguarde o término.

!! Fique atento às mensagens exibidas durante o processo de instalação. Em caso de erro, verifique se houve algum equívoco ao copiar ou digitar os comandos no terminal.

```
tar -C "$SOURCE_DIR" -xvzf "$SOURCE_DIR/pg-gvm-$PG_GVM_VERSION.tar.gz" &&
mkdir -p "$BUILD_DIR/pg-gvm" && cmake -S "$SOURCE_DIR/pg-gvm-$PG_GVM_VERSION"
-B "$BUILD_DIR/pg-gvm" -DCMAKE_BUILD_TYPE=Release && cmake --build
"$BUILD_DIR/pg-gvm" -j"$(nproc)" && mkdir -p "$INSTALL_DIR/pg-gvm" && cd
"$BUILD_DIR/pg-gvm" && make DESTDIR="$INSTALL_DIR/pg-gvm" install && sudo cp
-rv "$INSTALL_DIR/pg-gvm"/* /
```

```
vagrant@ubuntu2204: -/build/pg-gvm
- Installing: /home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--1.0--1.1.sql
- Installing: /home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--1.1--22.4.0.sql
- Installing: /home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.4.0--22.5.sql
- Installing: /home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql
vagrant@ubuntu2204:~/build/pg-gvm$
vagrant@ubuntu2204:~/build/pg-gvm$ sudo cp -rv $INSTALL_DIR/pg-gvm/* /
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/lib/libpg-gvm.so' -> '/usr/lib/postgresql/14/lib/libpg-gvm.so'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm.control' -> '/usr/share/postgresql/14/extension/pg-gvm--22.6.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--22.6.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--1.0--1.1.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--1.0--1.1.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--1.0--1.1.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--1.0--22.4.0.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--1.0--22.5.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--1.0--22.5.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--22.4.0--22.5.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql' -> '/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgresql/14/extension/pg-gvm--22.5--22.6.sql'
'/home/vagrant/install/pg-gvm/usr/share/postgres
```

Figura 12: Instalação e transferência do postgres-gvm para pasta padrão do sistema.

3.2 Greenbone Security Assistant

O Greenbone Security Assistant (GSA) é o front-end web do GVM, projetado para facilitar o gerenciamento de vulnerabilidades por meio de uma interface acessível via navegador. Ele é composto pelos módulos gsa (interface gráfica) e gsad (servidor de entrega HTTP). Juntos, permitem visualizar relatórios, configurar scans, e interagir com o gvmd sem necessidade de terminal.

3.2.1 gsa

Interface web do GVM baseada em JavaScript; permite ao usuário visualizar relatórios e operar os módulos por navegador.

Passo 4 - Copie e cole o código a seguir no terminal.

```
mkdir -p "$SOURCE_DIR/gsa-$GSA_VERSION" && tar -C
"$SOURCE_DIR/gsa-$GSA_VERSION" -xvzf "$SOURCE_DIR/gsa-$GSA_VERSION.tar.gz" &&
sudo mkdir -p "$INSTALL_PREFIX/share/gvm/gsad/web/" && sudo cp -rv
"$SOURCE_DIR/gsa-$GSA_VERSION"/* "$INSTALL_PREFIX/share/gvm/gsad/web/"
```

```
/ vagrant@ubuntu2204: ~/build/pg-gvm

/ home/vagrant/source/gsa-25.0.0/img/greenbone_banner.png' -> '/usr/local/share/gvm/gsad/web/img/greenbone_banner.png'
/ home/vagrant/source/gsa-25.0.0/img/os_netbsd.svg' -> '/usr/local/share/gvm/gsad/web/img/os_netbsd.svg'
/ home/vagrant/source/gsa-25.0.0/index.html' -> '/usr/local/share/gvm/gsad/web/index.html'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-en.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-en.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-fr.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-fr.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-pt_BR.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-pt_BR.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-zh_TW.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-zh_TW.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-zh_CN.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-zh_CN.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-ru.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-ru.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-tr.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-tr.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-tr.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-tr.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-ar.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-ar.json'
/ home/vagrant/source/gsa-25.0.0/locales/gsa-ar.json' -> '/usr/local/share/gvm/gsad/web/locales/gsa-ar.json'
/ home/vagrant/source/gsa-25.0.0/robots.txt' -> '/usr/local/share/gvm/gsad/web/robots.txt'
vagrant@ubuntu2204:~/build/pg-gvm$
```

Figura 13: Instalação e transferência do gsa para pasta padrão do sistema.

3.2.2 gsad

Servidor HTTP responsável por entregar a interface GSA ao navegador; atua como ponte entre o front-end e o gerenciador gymd.

Passo 5 - Copie e cole o código abaixo no terminal e aguarde a conclusão da instalação.

```
tar -C "$SOURCE_DIR" -xvzf "$SOURCE_DIR/gsad-$GSAD_VERSION.tar.gz" && mkdir -p
"$BUILD_DIR/gsad" && cmake -S "$SOURCE_DIR/gsad-$GSAD_VERSION" -B
"$BUILD_DIR/gsad" -DCMAKE_INSTALL_PREFIX="$INSTALL_PREFIX"
-DCMAKE_BUILD_TYPE=Release -DSYSCONFDIR=/etc -DLOCALSTATEDIR=/var
-DGVMD_RUN_DIR=/run/gvmd -DGSAD_RUN_DIR=/run/gsad -DGVM_LOG_DIR=/var/log/gvm
-DLOGROTATE_DIR=/etc/logrotate.d && cmake --build "$BUILD_DIR/gsad"
-j"$(nproc)" && mkdir -p "$INSTALL_DIR/gsad" && cd "$BUILD_DIR/gsad" && make
DESTDIR="$INSTALL_DIR/gsad" install && sudo cp -rv "$INSTALL_DIR/gsad"/* /
```

```
/cmake)
[100%] Built target gsad
/usr/bin/cmake: /usr/local/lib/libcurl.so.4: no version information available (required by /usr/bin/cmake)
/usr/bin/cmake: /usr/local/lib/libcurl.so.4: no version information available (required by /usr/bin/cmake)
/usr/bin/cmake: /usr/local/lib/libcurl.so.4: no version information available (required by /usr/bin/cmake)
/usr/bin/cmake: /usr/local/lib/libcurl.so.4: no version information available (required by /usr/bin/cmake)
/usr/bin/cmake: /usr/local/lib/libcurl.so.4: no version information available (required by /usr/bin/cmake)
/usr/bin/cmake: /usr/local/lib/libcurl.so.4: no version information available (required by /usr/bin/cmake)
/usr/bin/cmake: /usr/local/lib/libcurl.so.4: no version information available (required by /usr/bin/cmake)
/usr/bin/cmake: /usr/local/lib/spad log.conf
/usr/bin/cmake: /usr/local/sin/gsad log.conf
/usr/local/spin/gsad.service
/usr/local/spin/gsad
/usr/local/
```

Figura 14: Instalação e transferência do gsad para pasta padrão do sistema.

3.3 Openvas Scanner

O openvas-scanner é o motor de varredura de vulnerabilidades do GVM, responsável por aplicar testes aos sistemas-alvo usando os scripts NVTs (Network Vulnerability Tests). Ele coleta informações dos alvos, identifica falhas de segurança e retorna os resultados para o gerenciador gvmd. Funciona em conjunto com o openvas-smb (para análise em ambientes Windows), com o ospd-openvas (interface de comunicação via OSP), ou com o novo openvasd para integração via API.

3.3.1 openvas-smb

Responsável pela autenticação SMB e análise de vulnerabilidades específicas em ambientes Windows.

Passo 6 - Prossiga copiando e colando o código abaixo no terminal.

```
tar -C "$SOURCE_DIR" -xvzf

"$SOURCE_DIR/openvas-smb-$OPENVAS_SMB_VERSION.tar.gz" && mkdir -p

"$BUILD_DIR/openvas-smb" && cmake -S

"$SOURCE_DIR/openvas-smb-$OPENVAS_SMB_VERSION" -B "$BUILD_DIR/openvas-smb"

-DCMAKE_INSTALL_PREFIX="$INSTALL_PREFIX" -DCMAKE_BUILD_TYPE=Release && cmake

--build "$BUILD_DIR/openvas-smb" -j"$(nproc)" && mkdir -p

"$INSTALL_DIR/openvas-smb" && cd "$BUILD_DIR/openvas-smb" && make

DESTDIR="$INSTALL_DIR/openvas-smb" install && sudo cp -rv

"$INSTALL_DIR/openvas-smb"/* /
```

```
wagrant@ubuntu2204:~/build/openvas-smb/
- Installing: /home/vagrant/install/openvas-smb/usr/local/include/openvas/smb/openvas_wmi_interface.h
- Installing: /home/vagrant/install/openvas-smb/usr/local/share/man/man1/wmic.1
vagrant@ubuntu2204:~/build/openvas-smb$
vagrant@ubuntu2204:~/build/openvas-smb$
vagrant@ubuntu2204:~/build/openvas-smb$
sudo cp -rv $INSTALL_DIR/openvas-smb/* /
'/home/vagrant/install/openvas-smb/usr/local/lib/pkgconfig/libopenvas_wmiclient.pc' -> '/usr/local/lib/pkgconfig/libopenvas_wmiclient.pc'
'/home/vagrant/install/openvas-smb/usr/local/lib/libopenvas_wmiclient.so.22.5.3' -> '/usr/local/lib/libopenvas_wmiclient.so.22.5.3' -> '/usr/local/lib/libopenvas_wmiclient.so.22' -> '/usr/local/lib/libopenvas_wmiclient.so.22' -> '/usr/local/lib/libopenvas_wmiclient.so.22' -> '/usr/local/lib/libopenvas_wmiclient.so.22' -> '/usr/local/lib/libopenvas_wmiclient.so'
'/home/vagrant/install/openvas-smb/usr/local/lib/libopenvas_wmiclient.so' -> '/usr/local/lib/libopenvas_wmiclient.so'
'/home/vagrant/install/openvas-smb/usr/local/bin/wmic' -> '/usr/local/bin/wmic'
'/home/vagrant/install/openvas-smb/usr/local/include/openvas/smb' -> '/usr/local/include/openvas/smb
b'
'/home/vagrant/install/openvas-smb/usr/local/include/openvas/smb/openvas_smb_interface.h' -> '/usr/local/include/openvas/smb/openvas_smb_interface.h'
'/home/vagrant/install/openvas-smb/usr/local/include/openvas/smb/openvas_wmi_interface.h'
'/home/vagrant/install/openvas-smb/usr/local/include/openvas/smb/openvas_wmi_interface.h'
'/home/vagrant/install/openvas-smb/usr/local/share/man/man1/wmic.1' -> '/usr/local/share/man/man1/wmic.1'
'/home/vagrant/install/openvas-smb/usr/local/share/man/man1/wmic.1' -> '/usr/local/share/man/man1/wmic.1'
'/agrant@ubuntu2204:~/build/openvas-smb$
```

Figura 15: Instalação e transferência do openvas-smb para pasta padrão do sistema.

3.3.2 openvas-scanner

Módulo principal de varredura; executa os testes de segurança nos alvos definidos.

Passo 7 - Copie e cole todo o comando abaixo no terminal.

```
tar -C "$SOURCE_DIR" -xvzf

"$SOURCE_DIR/openvas-scanner-$OPENVAS_SCANNER_VERSION.tar.gz" && mkdir -p

"$BUILD_DIR/openvas-scanner" && cmake -S

"$SOURCE_DIR/openvas-scanner-$OPENVAS_SCANNER_VERSION" -B

"$BUILD_DIR/openvas-scanner" -DCMAKE_INSTALL_PREFIX="$INSTALL_PREFIX"

-DCMAKE_BUILD_TYPE=Release -DSYSCONFDIR=/etc -DLOCALSTATEDIR=/var

-DOPENVAS_FEED_LOCK_PATH=/var/lib/openvas/feed-update.lock

-DOPENVAS_RUN_DIR=/run/ospd && cmake --build "$BUILD_DIR/openvas-scanner"

-j"$(nproc)" && mkdir -p "$INSTALL_DIR/openvas-scanner" && cd

"$BUILD_DIR/openvas-scanner" && make DESTDIR="$INSTALL_DIR/openvas-scanner"

install && sudo cp -rv "$INSTALL_DIR/openvas-scanner"/*/
```

```
penvas misc.so.23'
'/home/vagrant/install/openvas-scanner/usr/local/lib/libopenvas_misc.so' -> '/usr/local/lib/libopenvas_misc.so'
'/home/vagrant/install/openvas-scanner/usr/local/lib/libopenvas_nasl.so.23.21.0' -> '/usr/local/lib/libopenvas_nasl.so.23.21.0' -> '/usr/local/lib/libopenvas_nasl.so.23.21.0' -> '/usr/local/lib/libopenvas_nasl.so.23.21.0' '/home/vagrant/install/openvas-scanner/usr/local/lib/libopenvas_nasl.so.23' -> '/usr/local/lib/libopenvas_nasl.so.23'
'/home/vagrant/install/openvas-scanner/usr/local/lib/libopenvas_nasl.so' -> '/usr/local/lib/libopenvas_nasl.so'
'/home/vagrant/install/openvas-scanner/usr/local/share/openvas' -> '/usr/local/share/openvas'
'/home/vagrant/install/openvas-scanner/usr/local/share/man/man1/openvas-nasl.1' -> '/usr/local/share/man/man1/openvas-nasl.1'
'/home/vagrant/install/openvas-scanner/usr/local/share/man/man1/openvas-nasl-lint.1' -> '/usr/local/share/man/man8/openvas.8'
'/home/vagrant/install/openvas-scanner/usr/local/bin/openvas-nasl-lint' -> '/usr/local/bin/openvas-nasl-lint'
'/home/vagrant/install/openvas-scanner/usr/local/bin/openvas-nasl-lint' -> '/usr/local/bin/openvas-nasl-lint'
'/home/vagrant/install/openvas-scanner/usr/local/shin/openvas' -> '/usr/local/shin/openvas'
'/home/vagrant/install/openvas-scanner/var/log/gym' -> '/var/log/gym'
'/home/vagrant/install/openvas-scanner/var/log/gym' -> '/var/lib/openvas/gnupg'
'/home/vagrant/install/openvas-scanner/var/lib/openvas/gnupg' -> '/var/lib/openvas/gnupg'
'/home/vagrant/install/openvas-scanner/var/lib/openvas/plugins' -> '/var/lib/openvas/gnupg'
'/home/vagrant/install/openvas-scanner/var/lib/openvas/plugins' -> '/var/lib/openvas/plugins'
vagrant@ubuntuz204:~/build/openvas-scanner/var/lib/openvas/plugins' -> '/var/lib/openvas/plugins'
```

Figura 16: Instalação e transferência do openvas-scanner para pasta padrão do sistema.

Passo 8 - Ao concluir este processo de build, insira estes comandos para ajustar as variáveis de configuração do openvas-scanner.

```
printf "table_driven_lsc = yes\n" | sudo tee /etc/openvas/openvas.conf
printf "openvasd_server = http://127.0.0.1:3000\n" | sudo tee -a
/etc/openvas/openvas.conf
```

```
vagrant@ubuntu2204:~/build/openvas-scanner$ printf "table_driven_lsc = yes\n" | sudo tee /etc/openv
as/openvas.conf
table_driven_lsc = yes
vagrant@ubuntu2204:~/build/openvas-scanner$ printf "openvasd_server = http://127.0.0.1:3000\n" | su
do tee -a /etc/openvas/openvas.conf
openvasd_server = http://127.0.0.1:3000
vagrant@ubuntu2204:~/build/openvas-scanner$
```

Figura 17: Gerando arquivos de configuração do openvas-scanner.

3.3.3 ospd-openvas

Camada de comunicação que conecta o scanner ao gvmd via protocolo OSP.

Passo 9 - Copie e cole o código e aguarde a finalização.

```
tar -C "$SOURCE_DIR" -xvzf

"$SOURCE_DIR/ospd-openvas-$OSPD_OPENVAS_VERSION.tar.gz" && cd

"$SOURCE_DIR/ospd-openvas-$OSPD_OPENVAS_VERSION" && mkdir -p

"$INSTALL_DIR/ospd-openvas" && python3 -m pip install
--root="$INSTALL_DIR/ospd-openvas" --no-warn-script-Location . && sudo cp -rv

"$INSTALL_DIR/ospd-openvas"/* /
```

```
// vagrant@ubuntu2204: ~/source/ospd-openvas-22.9.0
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/COPYING'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/COPYING'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/METADATA'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/WHEEL'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/entry_points.txt'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/entry_points.txt'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/INSTALLER
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/INSTALLER
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/direct_url.json'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/REQUESTED'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/REQUESTED'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/REQUESTED'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/RECORD'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/RECORD'
//home/vagrant/install/ospd-openvas/usr/local/lib/python3.10/dist-packages/ospd_openvas-22.9.0.dist-info/RECORD'
//home/vagrant/install/ospd-ope
```

Figura 18: Instalação e transferência do ospd-openvas para pasta padrão do sistema.

3.3.4 openvasd

Nova versão em Rust que integra o Notus Scanner e substituirá o ospd-openvas, oferecendo escaneamento via API RESTful.

Passo 10 - Copie e cole o código a seguir no terminal, o processo de instalação deste módulo pode ser acompanhado nas imagens abaixo.

⚠ Este processo costuma demorar um pouco, então reserve um tempo.

```
tar -C "$SOURCE_DIR" -xvzf

"$SOURCE_DIR/openvas-scanner-$OPENVAS_DAEMON.tar.gz" && mkdir -p

"$INSTALL_DIR/openvasd/usr/local/bin" && cd

"$SOURCE_DIR/openvas-scanner-$OPENVAS_DAEMON/rust/src/openvasd" && cargo build
--release && cd

"$SOURCE_DIR/openvas-scanner-$OPENVAS_DAEMON/rust/src/scannerctl" && cargo
build --release && sudo cp -v ../../target/release/openvasd

"$INSTALL_DIR/openvasd/usr/local/bin/" && sudo cp -v
../../target/release/scannerctl "$INSTALL_DIR/openvasd/usr/local/bin/" && sudo
cp -rv "$INSTALL_DIR/openvasd"/* /
```

```
💹 vagrant@ubuntu2204: ~/source/openvas-scanner-23.21.0/rust/src/openvasd
  Compiling
 Compiling
 Compiling
  Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
  Compiling
  Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
 Compiling
  Building
```

Figura 19: Compilação e instalação dos arquivos do openvasd através do cargo (rust).

```
vagrant@ubuntu2204:~/source/openvas-scanner-23.21.0/rust/src/scannerctl$ sudo cp -v ../../target/re
lease/openvasd $INSTALL_DIR/openvasd/usr/local/bin/ && sudo cp -v ../../target/release/scannerctl $
INSTALL_DIR/openvasd/usr/local/bin/ && sudo cp -rv $INSTALL_DIR/openvasd/* /
'../../target/release/openvasd' -> '/home/vagrant/install/openvasd/usr/local/bin/openvasd'
'../../target/release/scannerctl' -> '/home/vagrant/install/openvasd/usr/local/bin/scannerctl'
'/home/vagrant/install/openvasd/usr/local/bin/openvasd'
'/home/vagrant/install/openvasd/usr/local/bin/scannerctl' -> '/usr/local/bin/scannerctl'
vagrant@ubuntu2204:~/source/openvas-scanner-23.21.0/rust/src/scannerctl$
```

Figura 20: Transferência do openvasd para pasta padrão do sistema.

3.4 greenbone-feed-sync

O greenbone-feed-sync é um utilitário responsável por sincronizar os Feeds de vulnerabilidades usados pelo GVM. Ele baixa e atualiza os dados de testes (NVTs), CERTs e CPEs diretamente do servidor da Greenbone. Isso garante que o escaneamento esteja sempre com a base mais recente de detecção de falhas.

Passo 11 - Copie e cole o código abaixo, a instalação será realizada via pip.

```
mkdir -p "$INSTALL_DIR/greenbone-feed-sync" && python3 -m pip install
--root="$INSTALL_DIR/greenbone-feed-sync" --no-warn-script-location
greenbone-feed-sync && sudo cp -rv "$INSTALL_DIR/greenbone-feed-sync"/* /
```

```
vagrant@ubuntu2204: ~/source/openvas-scanner-23.21.0/rust/src/scannerct!
'/home/vagrant/install/greenbone-feed-sync/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/entry_points.txt' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/entry_points.txt'
'/home/vagrant/install/greenbone-feed-sync/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/INSTALLER' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/INSTALLER'
'/home/vagrant/install/greenbone-feed-sync/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/REQUESTED' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/REQUESTED'
'/home/vagrant/install/greenbone-feed-sync/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/RECORD' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/RECORD' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/RECORD' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/RECORD' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/RECORD' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/RECORD' -> '/usr/local/lib/python3.10/dist-packages/greenbone_feed_sync-25.1.0.dist-info/RECORD' -> '/usr/local/bin/shtab' -> '/usr/local/bin/shtab' '/home/vagrant/install/greenbone-feed-sync/usr/local/bin/shtab' -> '/usr/local/bin/markdown-it' -> '/usr/local/bin/markdown-it' -> '/usr/local/bin/markdown-it' -> '/usr/local/bin/markdown-it' -> '/usr/local/bin/greenbone-feed-sync' -> '/usr/local/bin/greenbone-feed-sync' -> '/usr/local/bin/greenbone-feed-sync' -> '/usr/local/bin/greenbone-feed-sync' -> '/usr/local/bin/greenbone-feed-sync' -> '/usr/local/bin/greenbone-scapdata-sync' -> '/usr/local/bin/greenbone-scapdata-sync' -> '/usr/local/bin/greenbone-scapdata-sync' -> '/usr/local/bin/greenbone-scapdata-sync' -
```

Figura 21: Instalação e transferência do greenbone-feed-sync para pasta padrão do sistema.

3.5 gvm-tools

O gvm-tools é um conjunto de scripts e utilitários para interagir com o gerenciador gvmd via API (GMP ou OSP). Permite automatizar tarefas como criação de scans, importação de targets e extração de relatórios sem usar a interface web.

Passo 12 - Cole o código abaixo no terminal e aguarde o término.

```
mkdir -p "$INSTALL_DIR/gvm-tools" && python3 -m pip install
--root="$INSTALL_DIR/gvm-tools" --no-warn-script-location gvm-tools && sudo cp
-rv "$INSTALL_DIR/gvm-tools"/* /
```

```
wagrant@ubuntu2204: -/source/openvas-scanner-23.21.0/rust/src/scannerct1

'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvmtools/_pycache__/script.cpython-310.pyc'
-> '/usr/local/lib/python3.10/dist-packages/gvmtools/_pycache__/script.cpython-310.pyc'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info'
-> '/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/LICENSE'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/METADATA'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/METADATA'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/METADATA'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/HEEL'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/entry_points.txt'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/INSTALLER'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/REQUESTED'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/REQUESTED'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/REQUESTED'
'/home/vagrant/install/gvm-tools/usr/local/lib/python3.10/dist-packages/gvm_tools-25.3.0.dist-info/REQUESTED'
'/home/vagrant/install/gvm-tools/usr/local/bin/gvm-cli' -> '/usr/local/bin/gvm-pyshell'
'/home/vagrant/install/gvm-tools/usr/local/bin/gvm-pyshell' -> '/usr/local/bin/gvm-pyshell'
'/home/vagrant/install/gvm-tools/usr/local/bin/gvm-script' -> '/usr/local/bin/gvm-pyshell'
'/home/vagrant/install/gvm-tools/usr/local/bin/gvm-script' -> '/usr/local/bin/gvm-script'
vagrant@ubuntu2204:~/s
```

Figura 22: Instalação e transferência do gym-tools para pasta padrão do sistema.

4. Instalações adicionais e ajuste de configurações

4.1 redis-server

O redis-server é utilizado como banco de dados temporário de alto desempenho para armazenar dados em cache durante os scans do GVM. Ele melhora a velocidade e a eficiência das operações, especialmente nas interações entre os módulos como gvmd e openvas-scanner.

Passo 1 - Realize a instalação e a configuração do redis-server, depois crie um serviço para uso do Greenbone através dos comandos abaixo.

```
sudo apt install -y redis-server

sudo cp
$SOURCE_DIR/openvas-scanner-$OPENVAS_SCANNER_VERSION/config/redis-openvas.conf
/etc/redis/

sudo chown redis:redis /etc/redis/redis-openvas.conf

echo "db_address = /run/redis-openvas/redis.sock" | sudo tee -a
/etc/openvas/openvas.conf

sudo systemctl start redis-server@openvas.service && sudo systemctl enable
redis-server@openvas.service

sudo usermod -aG redis gvm
```

```
vagrant@ubuntu2204:~/source/openvas-scanner-23.21.0/rust/src/scannerctl$ sudo chown redis:redis /et
c/redis/redis-openvas.conf
vagrant@ubuntu2204:~/source/openvas-scanner-23.21.0/rust/src/scannerctl$ echo "db_address = /run/re
dis-openvas/redis.sock" | sudo tee -a /etc/openvas/openvas.conf
db_address = /run/redis-openvas/redis.sock
vagrant@ubuntu2204:~/source/openvas-scanner-23.21.0/rust/src/scannerctl$ sudo systemctl start redis
-server@openvas.service && sudo systemctl enable redis-server@openvas.service
Created symlink /etc/systemd/system/multi-user.target.wants/redis-server@openvas.service → /lib/sys
temd/system/redis-server@.service.
vagrant@ubuntu2204:~/source/openvas-scanner-23.21.0/rust/src/scannerctl$ sudo usermod -aG redis gvm
vagrant@ubuntu2204:~/source/openvas-scanner-23.21.0/rust/src/scannerctl$
```

Figura 23: Configuração e inicialização do serviço redis-server@openvas e atribuição do usuário gvm ao grupo redis.

4.2 Ajustes de Configurações e Permissões

Passo 2 - Ajuste as permissões e importe a chave para a validação dos Feeds.

```
sudo mkdir -p /var/lib/notus /run/gvmd && sudo chown -R gvm:gvm
/var/lib/{gvm,openvas,notus} /var/log/gvm /run/gvmd && sudo chmod -R g+srw
/var/lib/{gvm,openvas} /var/log/gvm && sudo chown gvm:gvm /usr/local/sbin/gvmd
&& sudo chmod 6750 /usr/local/sbin/gvmd

mkdir -p $GNUPGHOME

sudo gpg --import /tmp/GBCommunitySigningKey.asc

echo "8AE4BE429B60A59B311C2E739823FAA60ED1E580:6:" | gpg --import-ownertrust

sudo mkdir -p $OPENVAS_GNUPG_HOME

sudo cp -r /tmp/openvas-gnupg/* $OPENVAS_GNUPG_HOME/

sudo chown -R gvm:gvm $OPENVAS_GNUPG_HOME
```

Figura 24: Importando a chave de integridade para validação dos feeds.

Passo 3 - Como alguns módulos exigem privilégios administrativos, configure o sudo para permitir que o usuário gvm tenha acesso aos comandos necessários.

```
echo "%gvm ALL = NOPASSWD: /usr/Local/sbin/openvas" | sudo tee
/etc/sudoers.d/gvm \
&& sudo chmod 0440 /etc/sudoers.d/gvm
```

```
vagrant@ubuntu2204:/tmp/openvas-gnupg$ echo "%gvm ALL = NOPASSWD: /usr/local/sbin/openvas" | sudo t
ee /etc/sudoers.d/gvm \
> && sudo chmod 0440 /etc/sudoers.d/gvm
%gvm ALL = NOPASSWD: /usr/local/sbin/openvas
```

Figura 25: Atribuindo o sudo ao usuário gvm.

Passo 4 - Retorne à pasta home, inicie o serviço do PostgreSQL e crie o usuário gvm, atribuindo-lhe permissões administrativas para uso com o banco de dados.

```
sudo systemctl start postgresql@14-main

sudo -u postgres bash

cd

createuser -DRS gvm

createdb -O gvm gvmd

psql gvmd -c "create role dba with superuser noinherit; grant dba to gvm;"

exit
```

```
vagrant@ubuntu2204:~$ sudo systemctl start postgresql@14-main
vagrant@ubuntu2204:~$ sudo -u postgres bash
postgres@ubuntu2204:/home/vagrant$ cd
postgres@ubuntu2204:~$ createuser -DRS gvm
postgres@ubuntu2204:~$ createdb -O gvm gvmd
postgres@ubuntu2204:~$ psql gvmd -c "create role dba with superuser noinherit; grant dba to gvm;"
GRANT ROLE
postgres@ubuntu2204:~$ exit
exit
vagrant@ubuntu2204:~$
```

Figura 26: Inicializando o processo do postgresql, criando usuário gvm e atribuindo privilégios.

4.3 Criação e configuração do usuário administrador

Passo 5 - Configure usuário admin, e em "--new-password" coloque uma senha de sua preferência, uma outra senha será impressa ao fim do comando, porém ela será logo sobrescrita pela senha que você definiu na variável.

```
sudo /usr/local/sbin/gvmd --create-user=admin && sudo /usr/local/sbin/gvmd
--user=admin --new-password=123
```

```
vagrant@ubuntu2204:/tmp/openvas-gnupg$ sudo /usr/local/sbin/gvmd --create-user=admin && sudo /usr/local/sbin/gvmd --create-user=admin && sudo /usr/local/sbin/gvmd --user=admin --new-password=123
User created with password '8b5edbc5-e227-444d-b02c-761159bed036'.
vagrant@ubuntu2204:/tmp/openvas-gnupg$
```

Figura 27: Criando usuário admin e atribuindo uma nova senha.

Passo 6 - Ajuste a permissão para que os feeds sejam gerenciados pelo usuário "Admin" do Greenbone.

```
sudo /usr/local/sbin/gvmd --modify-setting
78eceaec-3385-11ea-b237-28d24461215b --value `sudo /usr/local/sbin/gvmd
--get-users --verbose | grep admin | awk '{print $2}'`
```

```
vagrant@ubuntu2204:~$ sudo /usr/local/sbin/gvmd --modify-setting 78eceaec-3385-11ea-b237-28d2446121
5b --value `sudo /usr/local/sbin/gvmd --get-users --verbose | grep admin | awk '{print $2}'`
vagrant@ubuntu2204:~$
```

Figura 28: Ajustando administração dos feeds.

4.4 Gerando certificado para acesso via HTTPS

Passo 7 - Gere um certificado auto nomeado para configurar a conexão via HTTPS e mude sua propriedade para o usuário gvm.

```
sudo openssl req -x509 -newkey rsa:4096 -keyout /etc/gvm/gsad.key -out
/etc/gvm/gsad.crt -days 365 -nodes -subj "/CN=$(hostname)" && sudo chown
gvm:gvm /etc/gvm/gsad.{key,crt} && sudo chmod 640 /etc/gvm/gsad.{key,crt}
```

Figura 29: Gerando certificados para utilizar no HTTPS.

4.5 Atribuindo o Serviço ao Systemd

Passo 8 - Para gerar os arquivos referentes aos serviços de cada módulo do Greenbone, copie e cole todo o código abaixo.

```
cat << EOF > $BUILD_DIR/ospd-openvas.service
[Unit]
Description=OSPd Wrapper for the OpenVAS Scanner (ospd-openvas)
Documentation=man:ospd-openvas(8) man:openvas(8)
After=network.target networking.service redis-server@openvas.service
openvasd.service
Wants=redis-server@openvas.service openvasd.service
ConditionKernelCommandLine=!recovery
[Service]
Туре=ехес
User=gvm
Group=qvm
RuntimeDirectory=ospd
RuntimeDirectoryMode=2775
PIDFile=/run/ospd/ospd-openvas.pid
ExecStart=/usr/local/bin/ospd-openvas --foreground --unix-socket
/run/ospd/ospd-openvas.sock --pid-file /run/ospd/ospd-openvas.pid --log-file
/var/log/gvm/ospd-openvas.log --lock-file-dir /var/lib/openvas --socket-mode
00770 --notus-feed-dir /var/lib/notus/advisories
SuccessExitStatus=SIGKILL
Restart=always
RestartSec=60
[Install]
WantedBy=multi-user.target
E0F
cat << EOF > $BUILD_DIR/gvmd.service
[Unit]
Description=Greenbone Vulnerability Manager daemon (gvmd)
After=network.target networking.service postgresql.service
ospd-openvas.service
Wants=postgresgl.service ospd-openvas.service
Documentation=man:gvmd(8)
ConditionKernelCommandLine=!recovery
[Service]
Type=exec
User=qvm
Group=qvm
PIDFile=/run/gvmd/gvmd.pid
RuntimeDirectory=gvmd
RuntimeDirectoryMode=2775
ExecStart=/usr/local/sbin/gvmd --foreground
--osp-vt-update=/run/ospd/ospd-openvas.sock --listen-group=gvm
Restart=always
TimeoutStopSec=10
```

```
[Install]
WantedBy=multi-user.target
E0F
cat << EOF > $BUILD_DIR/gsad.service
[Unit]
Description=Greenbone Security Assistant daemon (gsad)
Documentation=man:gsad(8) https://www.greenbone.net
After=network.target gvmd.service
Wants=gvmd.service
[Service]
Type=exec
User=gvm
Group=gvm
RuntimeDirectory=qsad
RuntimeDirectoryMode=2775
PIDFile=/run/gsad/gsad.pid
ExecStart=/usr/local/sbin/gsad --listen=0.0.0.0 --port=9392 \
  --ssl-private-key=/etc/gvm/gsad.key \
  --ssl-certificate=/etc/gvm/gsad.crt
Restart=always
TimeoutStopSec=10
[Install]
Wart
NantedBy=multi-user.target
Alias=greenbone-security-assistant.service
EOF
cat << EOF > $BUILD_DIR/openvasd.service
[Unit]
Description=OpenVASD
Documentation=https://github.com/greenbone/openvas-scanner/tree/main/rust/open
ConditionKernelCommandLine=!recovery
[Service]
Type=exec
User=gvm
RuntimeDirectory=openvasd
RuntimeDirectoryMode=2775
ExecStart=/usr/local/bin/openvasd --mode service_notus --products
/var/lib/notus/products --advisories /var/lib/notus/advisories --listening
127.0.0.1:3000
SuccessExitStatus=SIGKILL
Restart=always
RestartSec=60
[Install]
WantedBy=multi-user.target
```

Figura 30: Criando arquivos dos serviços referentes aos módulos do Greenbone.

Passo 9 - Para confirmar se tudo foi criado corretamente, verifique o conteúdo da pasta build. Devem estar presentes quatro arquivos com extensão .service.

```
vagrant@ubuntu2204:~$ 1s build | grep '\.service$'
gsad.service
gvmd.service
openvasd.service
ospd-openvas.service
vagrant@ubuntu2204:~$
Figura 31: Conferindo arquivos .service na pasta.
```

Passo 10 - Agora importe os serviços para o systemd, e reinicie o daemon.

```
sudo cp -v
$BUILD_DIR/{ospd-openvas.service,gvmd.service,gsad.service,openvasd.service}
/etc/systemd/system/ && sudo systemctl daemon-reexec && sudo systemctl
daemon-reload

vagrant@ubuntu2204:~$ sudo cp -v $BUILD_DIR/{ospd-openvas.service,gvmd.service,gsad.service,openvas
```

d.service} /etc/systemd/system/ && sudo systemctl daemon-reexec && sudo systemctl daemon-reload
'/home/vagrant/build/ospd-openvas.service' -> '/etc/systemd/system/ospd-openvas.service'
'/home/vagrant/build/gvmd.service' -> '/etc/systemd/system/gvmd.service'
'/home/vagrant/build/gsad.service' -> '/etc/systemd/system/gsad.service'
'/home/vagrant/build/openvasd.service' -> '/etc/systemd/system/openvasd.service'

Figura 32: Transferindo os arquivos para a as pastas do Systemd.

4.6 Atualizando a base de dados do Greenbone

Passo 11 - Realize o feed-sync através do comando abaixo.

sudo /usr/local/bin/greenbone-feed-sync

```
Downloading Notus files from
rsync://feed.community.greenbone.net/community/vulnerability-feed/24.10/vt-data/notus/ to
/var/lib/notus
Downloading NASL files from
rsync://feed.community.greenbone.net/community/vulnerability-feed/24.10/vt-data/nasl/ to
/var/lib/openvas/plugins
Releasing lock on /var/lib/openvas/feed-update.lock
Trying to acquire lock on /var/lib/gvm/feed-update.lock
Acquired lock on /var/lib/gvm/feed-update.lock
Downloading SCAP data from
rsync://feed.community.greenbone.net/community/vulnerability-feed/24.10/scap-data/ to
/var/lib/gvm/scap-data
Downloading CERT-Bund data from
rsync://feed.community.greenbone.net/community/vulnerability-feed/24.10/cert-data/ to
/var/lib/gvm/cert-data
Downloading gymd data from rsync://feed.community.greenbone.net/community/data-feed/24.10/ to
/var/lib/gvm/data-objects/gymd
Releasing lock on /var/lib/gym/feed-update.lock
```

Figura 33: Executando um Feed-sync.

Passo 12 – Inicie os serviços e configure-os para que sejam ativados automaticamente durante a inicialização do sistema operacional.

sudo systemctl enable ospd-openvas gvmd gsad openvasd && sudo systemctl start ospd-openvas gvmd gsad openvasd

```
vagrant@ubuntu2204:~$ sudo systemctl enable ospd-openvas gvmd gsad openvasd && sudo systemctl start
  ospd-openvas gvmd gsad openvasd
Created symlink /etc/systemd/system/multi-user.target.wants/ospd-openvas.service → /etc/systemd/sys
tem/ospd-openvas.service.
Created symlink /etc/systemd/system/multi-user.target.wants/gvmd.service → /etc/systemd/system/gvmd
  .service.
Created symlink /etc/systemd/system/greenbone-security-assistant.service → /etc/systemd/system/gsad
  .service.
Created symlink /etc/systemd/system/multi-user.target.wants/gsad.service → /etc/systemd/system/gsad
  .service.
Created symlink /etc/systemd/system/multi-user.target.wants/openvasd.service → /etc/systemd/system/
  openvasd.service.
```

Figura 34: Executando os serviços e configurando para inicialização automática.

Passo 13 - Confira se está tudo funcional.

sudo systemctl status ospd-openvas gvmd gsad openvasd

Figura 35: Serviços do Greenbone em execução.

5. Acessando página Web e verificando a atualização dos feeds.

Passo 1 - Verifique o IP do dispositivo.

sudo ip address show

```
vagrant@ubuntu2204:**$ sudo ip address show

1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever

2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:8c:69:41 brd ff:ff:ff:ff:ff
    altname enp0s3
    inet 10.0.2.15/24 metric 100 brd 10.0.2.255 scope global dynamic eth0
        valid_lft 86131sec preferred_lft 86131sec
    inet6 fe80::a00:27ff:fe8c:6941/64 scope link
        valid_lft forever preferred_lft forever

3: eth1: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:64:b0:cd brd ff:ff:ff:ff:ff
    altname enp0s8
    inet 192.168.1.199/24 brd 192.168.1.255 scope global eth1
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe64:b0cd/64 scope link
        valid_lft forever preferred_lft forever
4: eth2: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
link/ether 08:00:27:df:9f:3a brd ff:ff:ff:ff:ff:ff
altname enp0s9
```

Figura 36: Imprimindo os IPs configurados.

Passo 2 - Agora acesse a página web do Greenbone através do IP do dispositivo pela porta 9392, utilize o protocolo https, por exemplo: https://192.168.1.1:9392.

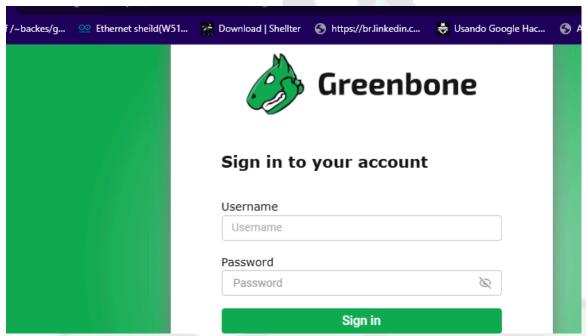


Figura 37: Página de Login do Greenbone.

Passo 3 - Agora é só realizar o login com o usuário e senha configurados anteriormente para ter acesso às ferramentas.

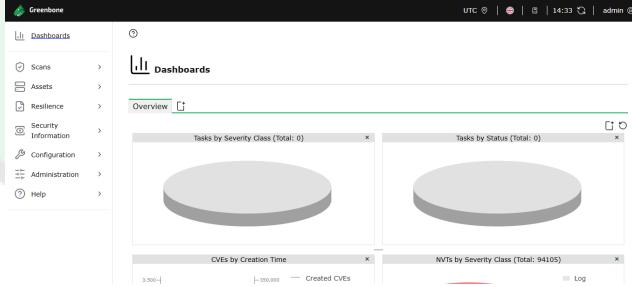


Figura 38: Dashboard do Greenbone.

6. Possíveis Problemas que Podem Impedir a Execução do Greenbone

Durante a instalação ou operação do GVM, alguns fatores podem bloquear seu funcionamento. Entre os mais comuns estão:

- Porta 9392 bloqueada pelo firewall: Essa porta é usada pelo gsad para oferecer a interface web do Greenbone. Certifique-se de liberá-la nas regras do firewall (ufw, iptables, etc.).
- **Serviços não iniciados corretamente:** Se gymd, openvas-scanner ou redis-server não estiverem rodando, o GVM pode falhar ao iniciar ou executar scans.
- Permissões incorretas: O usuário gvm precisa ter permissões adequadas, incluindo acesso a grupos como redis e permissões de leitura nos diretórios de feed.