

WireGuard VPN Server Setup Skript

Installiert einen WireGuard VPN Server - for Ubuntu 18.04 LTS, Debian 9 and CentOS 7.

This script will let you setup your own VPN server in no more than a minute, even if you haven't used WireGuard before. It has been designed to be as unobtrusive and universal as possible.

The script can be configured by setting the following environment variables:

- INTERACTIVE - if set to "no", the script will not prompt for user input
- PRIVATE_SUBNET - private subnet configuration, "10.9.0.0/24" by default
- SERVER_HOST - public IP address, detected by default
- SERVER_PORT - listening port, picked random by default
- CLIENT_DNS - comma separated DNS servers to use by the client

Skript Sourcecode

Filename: **install_wireguard_server.sh**

```
#!/bin/bash
#####
#####
***** WireGuard VPN Server Setup by Michael Reber - v 1.1
*****#
#####
#####

#####
#####
WG_CONFIG="/etc/wireguard/wg0.conf"

function get_free_udp_port
{
    local port=$(shuf -i 2000-65000 -n 1)
    ss -lau | grep $port > /dev/null
    if [[ $? == 1 ]] ; then
        echo "$port"
    else
        get_free_udp_port
    fi
}

if [[ "$EUID" -ne 0 ]]; then
    echo "Sorry, you need to run this as root"
    exit
}
```

```
fi

if [[ ! -e /dev/net/tun ]]; then
    echo "The TUN device is not available. You need to enable TUN before
    running this script"
    exit
fi

if [ -e /etc/centos-release ]; then
    DISTRO="CentOS"
elif [ -e /etc/debian_version ]; then
    DISTRO=$( lsb_release -is )
else
    echo "Your distribution is not supported (yet)"
    exit
fi

if [ "$( systemd-detect-virt )" == "openvz" ]; then
    echo "OpenVZ virtualization is not supported"
    exit
fi

if [ ! -f "$WG_CONFIG" ]; then
    ### Install server and add default client
    INTERACTIVE=${INTERACTIVE:-yes}
    PRIVATE_SUBNET=${PRIVATE_SUBNET:-"10.9.0.0/24"}
    PRIVATE_SUBNET_MASK=$( echo $PRIVATE_SUBNET | cut -d "/" -f 2 )
    GATEWAY_ADDRESS="${PRIVATE_SUBNET::-4}1"

    if [ "$SERVER_HOST" == "" ]; then
        SERVER_HOST=$(ip addr | grep 'inet' | grep -v inet6 | grep -vE
        '127\.[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}' | grep -oE
        '[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}' | head -1)
        if [ "$INTERACTIVE" == "yes" ]; then
            read -p "Servers public IP address is $SERVER_HOST. Is that
            correct? [y/n]: " -e -i "y" CONFIRM
            if [ "$CONFIRM" == "n" ]; then
                echo "Aborted. Use environment variable SERVER_HOST to set
                the correct public IP address"
                exit
            fi
        fi
    fi

    if [ "$SERVER_PORT" == "" ]; then
        SERVER_PORT=$( get_free_udp_port )
    fi

    if [ "$CLIENT_DNS" == "" ]; then
```

```
echo "Which DNS do you want to use with the VPN?"
echo "  1) Cloudflare"
echo "  2) Google"
echo "  3) OpenDNS"
read -p "DNS [1-3]: " -e -i 1 DNS_CHOICE

case $DNS_CHOICE in
    1)
        CLIENT_DNS="1.1.1.1,1.0.0.1"
        ;;
    2)
        CLIENT_DNS="8.8.8.8,8.8.4.4"
        ;;
    3)
        CLIENT_DNS="208.67.222.222,208.67.220.220"
        ;;
esac
fi

if [ "$DISTRO" == "Ubuntu" ]; then
apt-get install software-properties-common -y
add-apt-repository ppa:wireguard/wireguard -y
apt update
apt install wireguard qrencode iptables-persistent -y
elif [ "$DISTRO" == "Debian" ]; then
    echo "deb http://deb.debian.org/debian/ unstable main" >
/etc/apt/sources.list.d/unstable.list
    printf 'Package: *\nPin: release a=unstable\nPin-Priority: 90\n' >
/etc/apt/preferences.d/limit-unstable
    apt-get install software-properties-common -y
    apt update
    apt install wireguard qrencode iptables-persistent -y
elif [ "$DISTRO" == "CentOS" ]; then
    curl -Lo /etc/yum.repos.d/wireguard.repo
https://copr.fedorainfracloud.org/coprs/jdoss/wireguard/repo/epel-7/jdoss-wi
reguard-epel-7.repo
    yum install epel-release -y
    yum install wireguard-dkms qrencode wireguard-tools firewalld -y
fi

SERVER_PRIVKEY=$( wg genkey )
SERVER_PUBKEY=$( echo $SERVER_PRIVKEY | wg pubkey )
CLIENT_PRIVKEY=$( wg genkey )
CLIENT_PUBKEY=$( echo $CLIENT_PRIVKEY | wg pubkey )
CLIENT_ADDRESS="${PRIVATE_SUBNET::-4}3"

mkdir -p /etc/wireguard
touch $WG_CONFIG && chmod 600 $WG_CONFIG

echo "# $PRIVATE_SUBNET $SERVER_HOST:$SERVER_PORT $SERVER_PUBKEY
$CLIENT_DNS
```

```
[Interface]
Address = $GATEWAY_ADDRESS/$PRIVATE_SUBNET_MASK
ListenPort = $SERVER_PORT
PrivateKey = $SERVER_PRIVKEY
SaveConfig = false" > $WG_CONFIG

    echo "# client
[Peer]
PublicKey = $CLIENT_PUBKEY
AllowedIPs = $CLIENT_ADDRESS/32" >> $WG_CONFIG

    echo "[Interface]
PrivateKey = $CLIENT_PRIVKEY
Address = $CLIENT_ADDRESS/$PRIVATE_SUBNET_MASK
DNS = $CLIENT_DNS
[Peer]
PublicKey = $SERVER_PUBKEY
AllowedIPs = 0.0.0.0/0, ::/0
Endpoint = $SERVER_HOST:$SERVER_PORT
PersistentKeepalive = 25" > $HOME/client-wg0.conf
qrencode -t ansiutf8 -l L < $HOME/client-wg0.conf

    echo "net.ipv4.ip_forward=1" >> /etc/sysctl.conf
    echo "net.ipv4.conf.all.forwarding=1" >> /etc/sysctl.conf
    echo "net.ipv6.conf.all.forwarding=1" >> /etc/sysctl.conf
    sysctl -p

    if [ "$DISTRO" == "CentOS" ]; then
        systemctl start firewalld
        firewall-cmd --zone=public --add-port=$SERVER_PORT/udp
        firewall-cmd --zone=trusted --add-source=$PRIVATE_SUBNET
        firewall-cmd --permanent --zone=public --add-port=$SERVER_PORT/udp
        firewall-cmd --permanent --zone=trusted --add-source=$PRIVATE_SUBNET
        firewall-cmd --direct --add-rule ipv4 nat POSTROUTING 0 -s
$PRIVATE_SUBNET ! -d $PRIVATE_SUBNET -j SNAT --to $SERVER_HOST
        firewall-cmd --permanent --direct --add-rule ipv4 nat POSTROUTING 0
-s $PRIVATE_SUBNET ! -d $PRIVATE_SUBNET -j SNAT --to $SERVER_HOST
    else
        iptables -A FORWARD -m conntrack --ctstate RELATED,ESTABLISHED -j
ACCEPT
        iptables -A FORWARD -m conntrack --ctstate NEW -s $PRIVATE_SUBNET -m
policy --pol none --dir in -j ACCEPT
        iptables -t nat -A POSTROUTING -s $PRIVATE_SUBNET -m policy --pol
none --dir out -j MASQUERADE
        iptables -A INPUT -p udp --dport $SERVER_PORT -j ACCEPT
        iptables-save > /etc/iptables/rules.v4
    fi

    systemctl enable wg-quick@wg0.service
    systemctl start wg-quick@wg0.service
```

```

# TODO: unattended updates, apt install dnsmasq ntp
echo "Client config --> $HOME/client-wg0.conf"
echo "Now reboot the server and enjoy your fresh VPN installation! :^)"
else
### Server is installed, add a new client
CLIENT_NAME="$1"
if [ "$CLIENT_NAME" == "" ]; then
    echo "Tell me a name for the client config file. Use one word only,
no special characters."
    read -p "Client name: " -e CLIENT_NAME
fi
CLIENT_PRIVKEY=$( wg genkey )
CLIENT_PUBKEY=$( echo $CLIENT_PRIVKEY | wg pubkey )
PRIVATE_SUBNET=$( head -n1 $WG_CONFIG | awk '{print $2}')
PRIVATE_SUBNET_MASK=$( echo $PRIVATE_SUBNET | cut -d "/" -f 2 )
SERVER_ENDPOINT=$( head -n1 $WG_CONFIG | awk '{print $3}')
SERVER_PUBKEY=$( head -n1 $WG_CONFIG | awk '{print $4}')
CLIENT_DNS=$( head -n1 $WG_CONFIG | awk '{print $5}')
LASTIP=$( grep "/32" $WG_CONFIG | tail -n1 | awk '{print $3}' | cut -d
"/" -f 1 | cut -d "." -f 4 )
CLIENT_ADDRESS="${PRIVATE_SUBNET::-4}${((LASTIP+1))}"
echo "# $CLIENT_NAME
[Peer]
PublicKey = $CLIENT_PUBKEY
AllowedIPs = $CLIENT_ADDRESS/32" >> $WG_CONFIG

    echo "[Interface]
PrivateKey = $CLIENT_PRIVKEY
Address = $CLIENT_ADDRESS/$PRIVATE_SUBNET_MASK
DNS = $CLIENT_DNS
[Peer]
PublicKey = $SERVER_PUBKEY
AllowedIPs = 0.0.0.0/0, ::/0
Endpoint = $SERVER_ENDPOINT
PersistentKeepalive = 25" > $HOME/$CLIENT_NAME-wg0.conf
qrencode -t ansiutf8 -l L < $HOME/$CLIENT_NAME-wg0.conf

    ip address | grep -q wg0 && wg set wg0 peer "$CLIENT_PUBKEY" allowed-ips
"$CLIENT_ADDRESS/32"
    echo "Client added, new configuration file --> $HOME/$CLIENT_NAME-
wg0.conf"
fi

```

Last update: **2019/05/07 12:17**