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1. Which VPN; Safenet or RDP

Safenet VPN

Safenet VPN securely connects your PC to the internet via the UG network.

- You do not need to request anything, installing the software is enough to log in with your P number or your S number
- Your PC gets a secure encrypted connection with the UG network, from there you enter the internet.
- Safenet is suitable for safe use with public WIFI facilities.
- Safenet can be used in countries with restrictions on internet traffic.

* To install RDP VPN, read in this manual **rdp.vpn.rug.nl** in stead of **safenet.vpn.rug.nl**

RDP VPN

RDP VPN is used to make a secure connection with a PC in the UG network via the Remote Desktop Protocol.

- You do not need to request anything, installing the software is enough to log in with your P number or your S number
- RDP VPN is specifically intended for remote management of a PC using the Remote Desktop Protocol
- Without this VPN connection, it is not possible to set up an RDP session with a PC in the RUG network
- **Network traffic (other than RDP) is not encrypted !**



To make a connection from a Linux device, you got two clients available.

Section 2. Global Protect client for Linux This is a "closed source" Client with support for Debian, Ubuntu en Redhat.

Section 3. Openconnect Client for Linux; This is a "open source" alternative and available on most modern Linux distributions. But you need at least version 8 for the right support.

2. Global Protect Client for Linux

A Global Protect client for Linux is available on the Download Portal
Browse to : <https://swdownload.webhosting.rug.nl/>
Search for "VPN Global Protect client for Linux"

The screenshot shows a web browser window displaying the University of Groningen Software Download Portal. The page has a red header with the university logo and navigation links. A sidebar on the left shows a menu with 'Download portal' and 'Software'. The main content area is titled 'Software' and contains a table with two entries:

Title	Date	Filesize	
Transmit 5 - Software and activation - MAC	06/04/2018	27 KB	[more] [download]
VPN Global Protect client for Linux	18/12/2018	7.7 MB	[more] [download]

Below the table, it says 'Displaying results 76 to 77 out of 77' and provides pagination links: '< Previous', 'Page 1', 'Page 2', 'Page 3', 'Page 4', 'Page 5', and 'Page 6'. At the bottom right, there is a 'To Top' link.

Unzip the tar bal:

```
user@linuxhost:~$ tar -xvf ~/pkgs/PanGPLinux-4.1.7.tgz
```

Install Global Protect client

i.e for "Ubuntu"

```
user@linuxhost:~$ sudo dpkg -i GlobalProtect_deb-4.1.7.0-19.deb
```



To connect, do:

```
user@linuxhost:~$ globalprotect  
connect --portal safenet.vpn.rug.nl  
Retrieving configuration...  
Disconnected  
Safenet.vpn.rug.nl - portal:local:Enter login credentials  
username:P123456 (Your P-number or S-number)  
Password:  
Retrieving configuration...  
Discovering network...  
Connecting...  
Connected
```

Your connection is ready

To disconnect, use the globalprotect tool:

```
user@linuxhost:~$ globalprotect disconnect  
Disconnected
```

To clear the current credentials:

```
user@linuxhost:~$ globalprotect  
remove-user  
Credential will be cleared and current tunnel will be terminated.  
Do you want to continue(y/n)?y  
Clear is done successfully.
```



2. Openconnect Client for Linux

Install the openconnect package

```
example@ubuntu:~$ sudo apt-get install openconnect
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  openconnect
0 upgraded, 1 newly installed, 0 to remove and 60 not upgraded.
Need to get 445 kB of archives.
After this operation, 2,635 kB of additional disk space will be used.
Get:1 http://nl.archive.ubuntu.com/ubuntu disco/universe amd64 openconnect amd64
8.02-1 [445 kB]
Fetched 445 kB in 0s (2,573 kB/s)
Selecting previously unselected package openconnect.
(Reading database ... 136711 files and directories currently installed.)
Preparing to unpack .../openconnect_8.02-1_amd64.deb ...
Unpacking openconnect (8.02-1) ...
Setting up openconnect (8.02-1) ...
Processing triggers for man-db (2.8.5-2) ...
```

To connect, do:

```
example@ubuntu:~$ sudo openconnect --protocol=gp safenet.vpn.rug.nl
POST https://safenet.vpn.rug.nl/ssl-
vpn/prelogin.esp?tmp=tmp&clientVer=4100&clientos=Linux
Connected to 129.125.245.10:443
SSL negotiation with safenet.vpn.rug.nl
Connected to HTTPS on safenet.vpn.rug.nl
Enter login credentials
Username: p123456 (Your P-number or S-number)
Password:
POST https://safenet.vpn.rug.nl/ssl-vpn/login.esp
GlobalProtect login returned authentication-source=safenetusers-directory
POST https://safenet.vpn.rug.nl/ssl-vpn/getconfig.esp
Tunnel timeout (rekey interval) is 43200 minutes.
Idle timeout is 43200 minutes.
No MTU received. Calculated 1422 for ESP tunnel
POST https://safenet.vpn.rug.nl/ssl-vpn/hipreportcheck.esp
WARNING: Server asked us to submit HIP report with md5sum
fd7c241818173a003abeeeeeee47.
VPN connectivity may be disabled or limited without HIP report submission.
You need to provide a --csd-wrapper argument with the HIP report submission script.
Connected as 192.168.10.194, using SSL, with ESP in progress
ESP session established with server
ESP tunnel connected; exiting HTTPS mainloop.
```

Your connection is ready

For more information visit the openconnect website:
<https://www.infradead.org/openconnect/>