

## Using Linux:

Currently, Linux users who wish to connect to the CS department's VPN should use our alternate Global Protect connection to the VPN, and will do so effectively by using the openconnect command line client. Follow the steps below to install openconnect and connect to the CS VPN.

### 0.1 Install openconnect

\* Open a terminal, and type (or copy) the appropriate command to install openconnect (openconnect is available through the package managers of most major linux distributions)

- **Debian** or **Ubuntu**:  
`sudo apt install -y openconnect`
- **RedHat** based distributions (**Fedora**, **CentOS**, **Oracle**):  
`sudo yum install -y openconnect`  
\$  
`sudo dnf install -y openconnect`
- Other distributions:  
\*Follow the format of your package manager.\*

### 0.2 Establish a connection to the VPN from the command line

Once openconnect is installed you should enter the following line, where you substitute your actual cs username for 'cs\_username'

```
sudo openconnect --protocol=gp gp.cs.odu.edu -u cs_username
```

#### 0.2.1 Enter your sudo password (If you have not used it in the last 5 minutes)



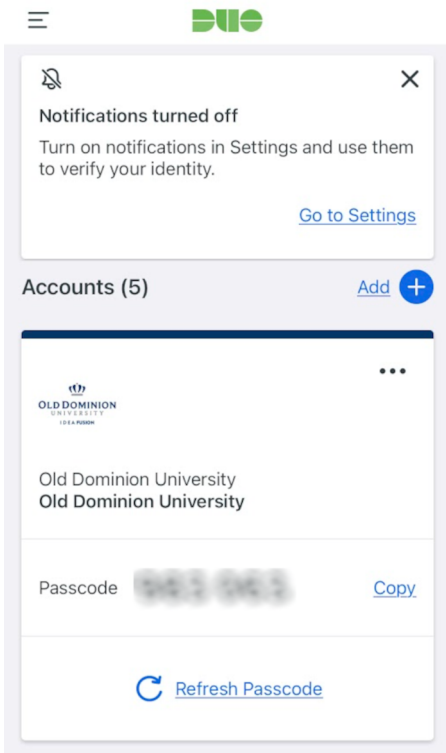
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sudo openconnect --p ~
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┌> ~ sudo openconnect --protocol=gp gp.cs.odu.edu -u [redacted] 08:56:26
[sudo] password for [redacted]:
POST https://gp.cs.odu.edu/global-protect/prelogin.esp?tmp=tmp&clientVer=4100&cl
ientos=Linux
Connected to 128.82.10.6:443
SSL negotiation with gp.cs.odu.edu
Connected to HTTPS on gp.cs.odu.edu with ciphersuite (TLS1.2)-(RSA)-(AES-256-GCM
)
Enter login credentials
Password:
```

## 0.2.2 Enter your CS user password

```
sudo openconnect --p ~
ientos=Linux
Connected to 128.82.10.6:443
SSL negotiation with gp.cs.odu.edu
Connected to HTTPS on gp.cs.odu.edu with ciphersuite (TLS1.2)-(RSA)-(AES-256-GCM)
)
Enter login credentials
Password:
POST https://gp.cs.odu.edu/global-protect/getconfig.esp
SSL negotiation with gp.cs.odu.edu
Connected to HTTPS on gp.cs.odu.edu with ciphersuite (TLS1.2)-(RSA)-(AES-256-GCM)
)
Portal set HIP report interval to 60 minutes).
1 gateway servers available:
  ECS_Gateway (gp.cs.odu.edu)
Please select GlobalProtect gateway.
GATEWAY: [ECS_Gateway]:ECS_Gateway
POST https://gp.cs.odu.edu/ssl-vpn/login.esp
Challenge: Duo two-factor login for jswee002 Enter a passcode or select one of
the following options: 1. Duo Push to XXX-XXX-7107 2. SMS passcodes to XXX-XX
X-7107 (next code starts with: 1) Passcode or option (1-2):
Duo two-factor login for jswee002 Enter a passcode or select one of the followi
ng options: 1. Duo Push to XXX-XXX-7107 2. SMS passcodes to XXX-XXX-7107 (nex
t code starts with: 1) Passcode or option (1-2):
Challenge: █
```

## 0.2.3 At this step select your DUO verification method (Challenge, Push, or text to mobile device)

\*In this example the 6 digit challenge is selected (be sure to refresh the code)\*



After you verify with DUO, you should see something like the following:

```
sudo openconnect --p ~
Challenge:
POST https://gp.cs.odu.edu/ssl-vpn/login.esp
SSL negotiation with gp.cs.odu.edu
Connected to HTTPS on gp.cs.odu.edu with ciphersuite (TLS1.2)-(RSA)-(AES-256-GCM)
GlobalProtect login returned authentication-source=Duo Sequence
GlobalProtect login returned portal-userauthcookie=...
GlobalProtect login returned usually-equals-4=4
GlobalProtect login returned usually-equals-unknown=unknown
POST https://gp.cs.odu.edu/ssl-vpn/getconfig.esp
Tunnel timeout (rekey interval) is 180 minutes.
Idle timeout is 180 minutes.
No MTU received. Calculated 1422 for ESP tunnel
POST https://gp.cs.odu.edu/ssl-vpn/hipreportcheck.esp
ESP session established with server
ESP tunnel connected; exiting HTTPS mainloop.
Configured as 172.18.20.255, with SSL disconnected and ESP established
Session authentication will expire at Sun Oct 16 09:02:00 2022
```

After which you should be connected to the CS VPN.