Secure Private Network Installation Guide for Linux

ClearPath Networks

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Table of Contents

1. Introduction

You can install the Secure Private Network on your system via a Linux shell.

2. System Requirements

2.1. Prerequisites

Verify that your computer meets the following minimum requirements:
- A single Pentium® Core 2 Duo processor

- Web Browser – Chrome, Firefox 3+

- One of the following operating systems:

  o Ubuntu Desktop and Server 11.04 for both 32- and 64-bit

  o Ubuntu Desktop and Server 11.10 for both 32- and 64-bit

  o Ubuntu Desktop and Server 12.04 for both 32- and 64-bit

  o Languages displayed – English (US)

2.2. Hard Disk

- 10 MB hard disk space
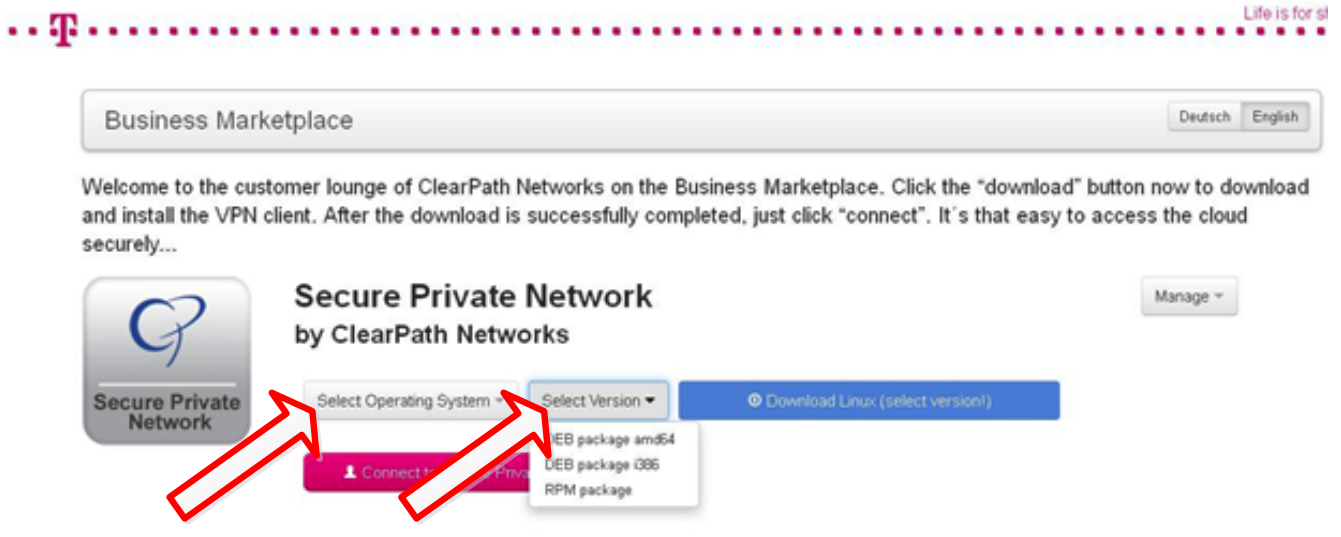
2.3. RAM

- 1GB minimum

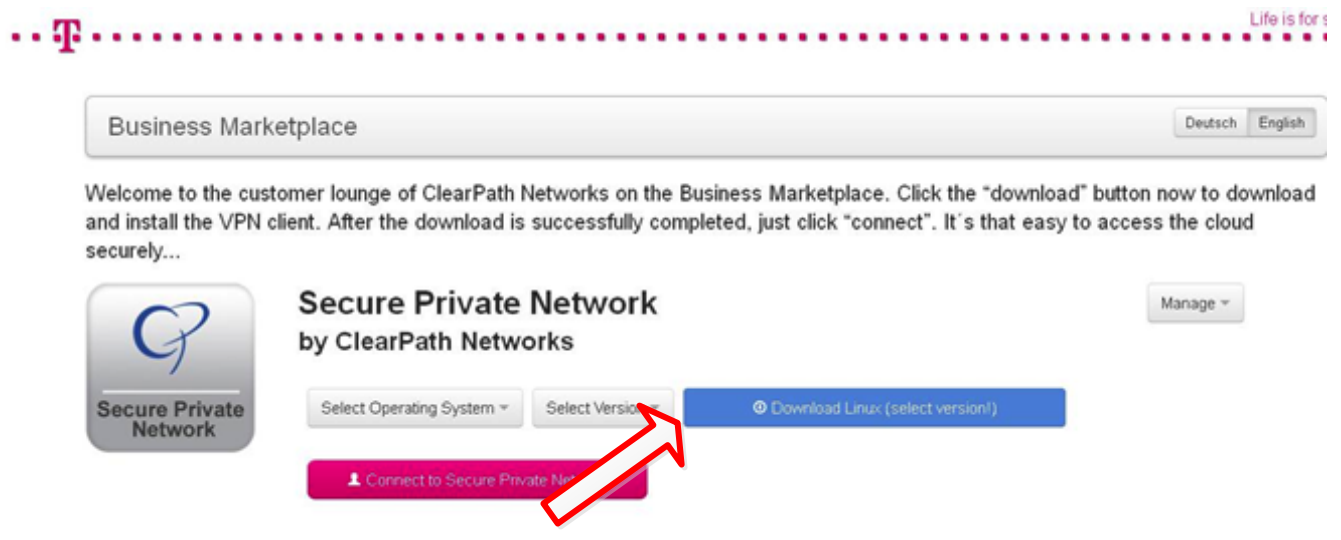# 3. Installation Steps

3.1. Download Secure Private Network

1. Once authenticated to the Telekom portal, navigate to the Secure Private Network product

2. From the Secure Private Network select Linux as the operating system and then select the appropriate version.
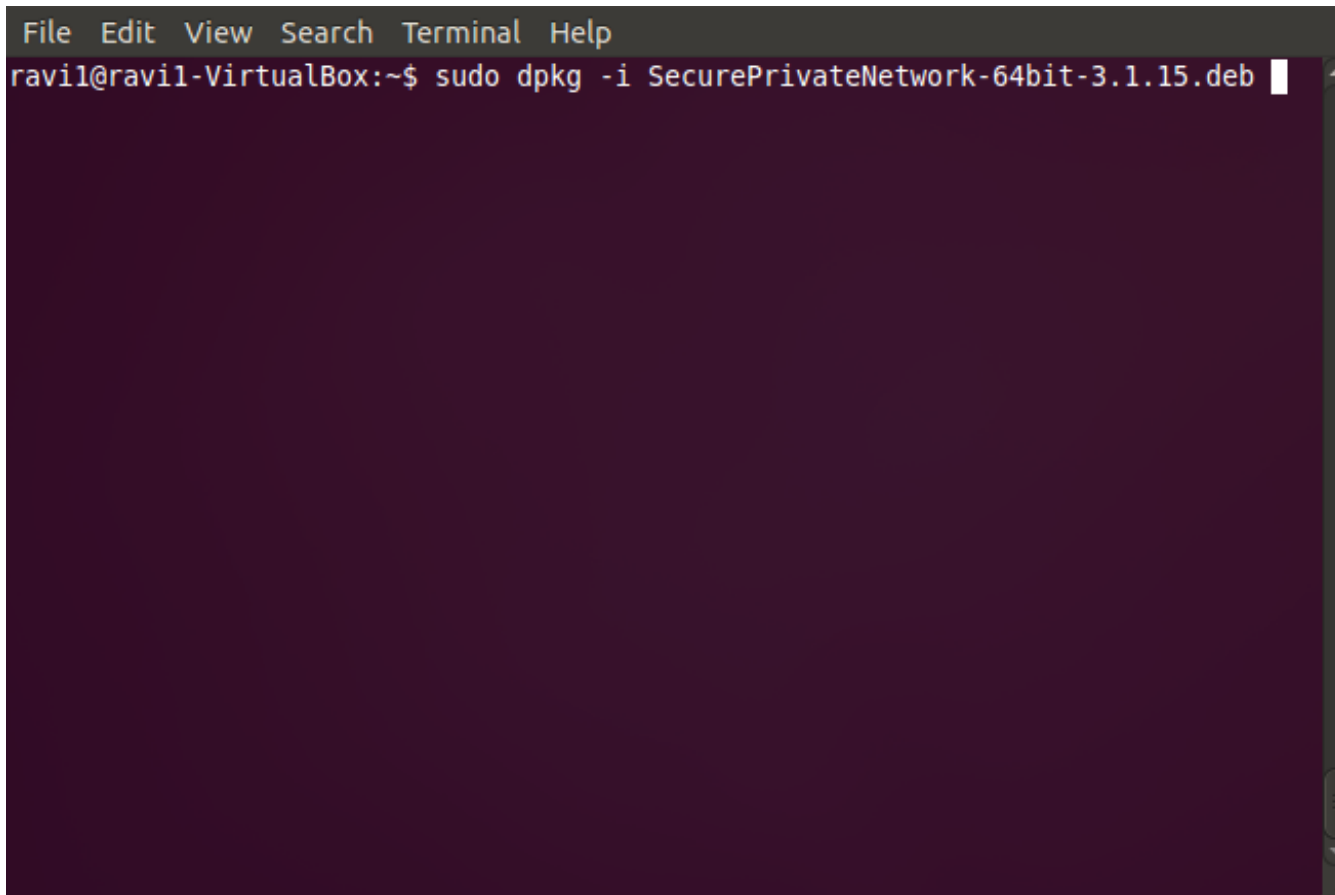

3. Click the "Download Linux" button.

3.2. Install Secure Private Network

Once downloaded, navigate to the location where the file is saved and issue the command below from a shell prompt. The specific steps to find the installer will vary depending on the browser used to access Marketplace.

> sudo dpkg -i SecurePrivateNetwork-32bit-3.1.15.deb
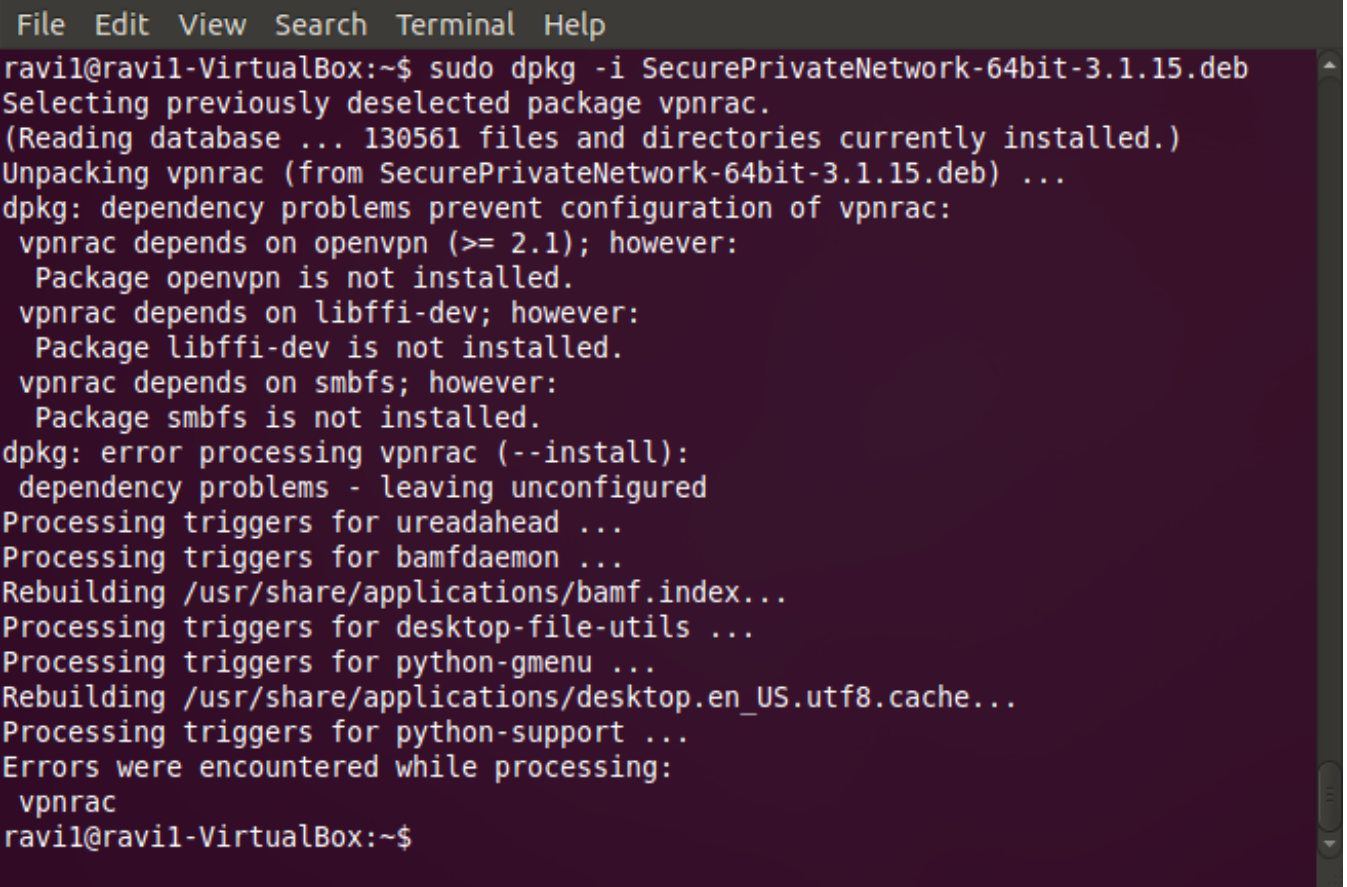

Note that the specific installation Debian package will depend on the version downloaded.
Note the filename will be different for the various OS version/word-size combinations.
> SecurePrivateNetwork-32bit-3.1.15.deb
> SecurePrivateNetwork-64bit-3.1.15.deb

An example output screen is shown below.

```
File  Edit  View  Search  Terminal  Help
ravi1@ravi1-VirtualBox:~$ sudo dpkg -i SecurePrivateNetwork-64bit-3.1.15.deb
Selecting previously deselected package vpnrac.
(Reading database ... 130561 files and directories currently installed.)
Unpacking vpnrac (from SecurePrivateNetwork-64bit-3.1.15.deb) ...
dpkg: dependency problems prevent configuration of vpnrac:
 vpnrac depends on openvpn (>= 2.1); however:
  Package openvpn is not installed.
 vpnrac depends on libffi-dev; however:
  Package libffi-dev is not installed.
 vpnrac depends on smbfs; however:
  Package smbfs is not installed.
dpkg: error processing vpnrac (--install):
 dependency problems - leaving unconfigured
Processing triggers for ureadahead ...
Processing triggers for bamfdaemon ...
Rebuilding /usr/share/applications/bamf.index...
Processing triggers for desktop-file-utils ...
Processing triggers for python-gmenu ...
Rebuilding /usr/share/applications/desktop.en_US.utf8.cache...
Processing triggers for python-support ...
Errors were encountered while processing:
 vpnrac
ravi1@ravi1-VirtualBox:~$
```

The errors are expected and will be fixed by executing the following commands:
            sudo apt-get update
            sudo apt-get -f install


These commands should run without error and will clean-up all the dependencies.

Your Secure Private Network software is installed and ready for use.

Some versions and/or installation configurations require a reboot after install. If you encounter difficulties please reboot your system.
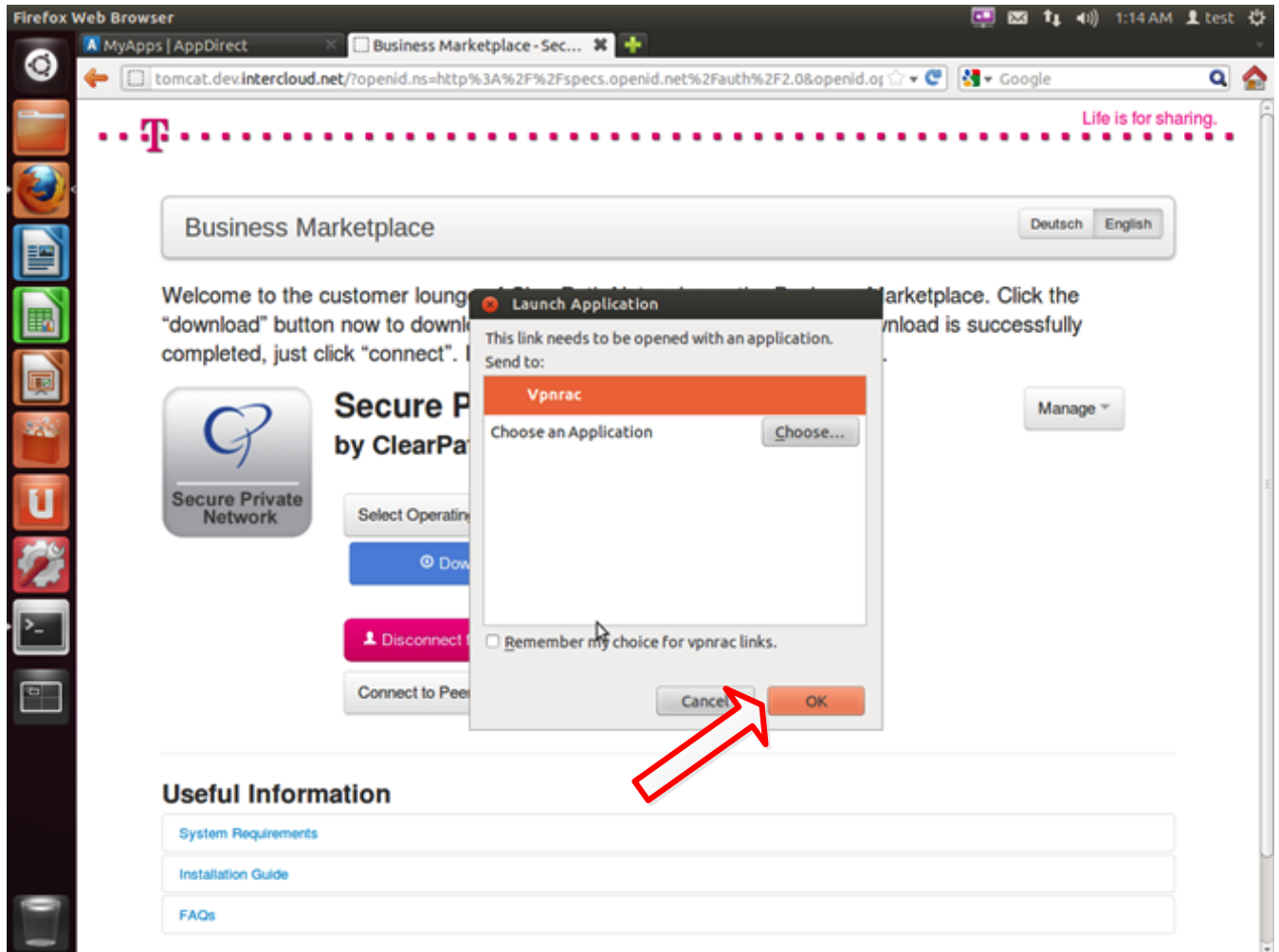
3.3. Use your Secure Private Network on Ubuntu Desktop

1. Login to the Business Marketplace and navigate to the Secure Private Network then click "Connect to Secure Private Network."
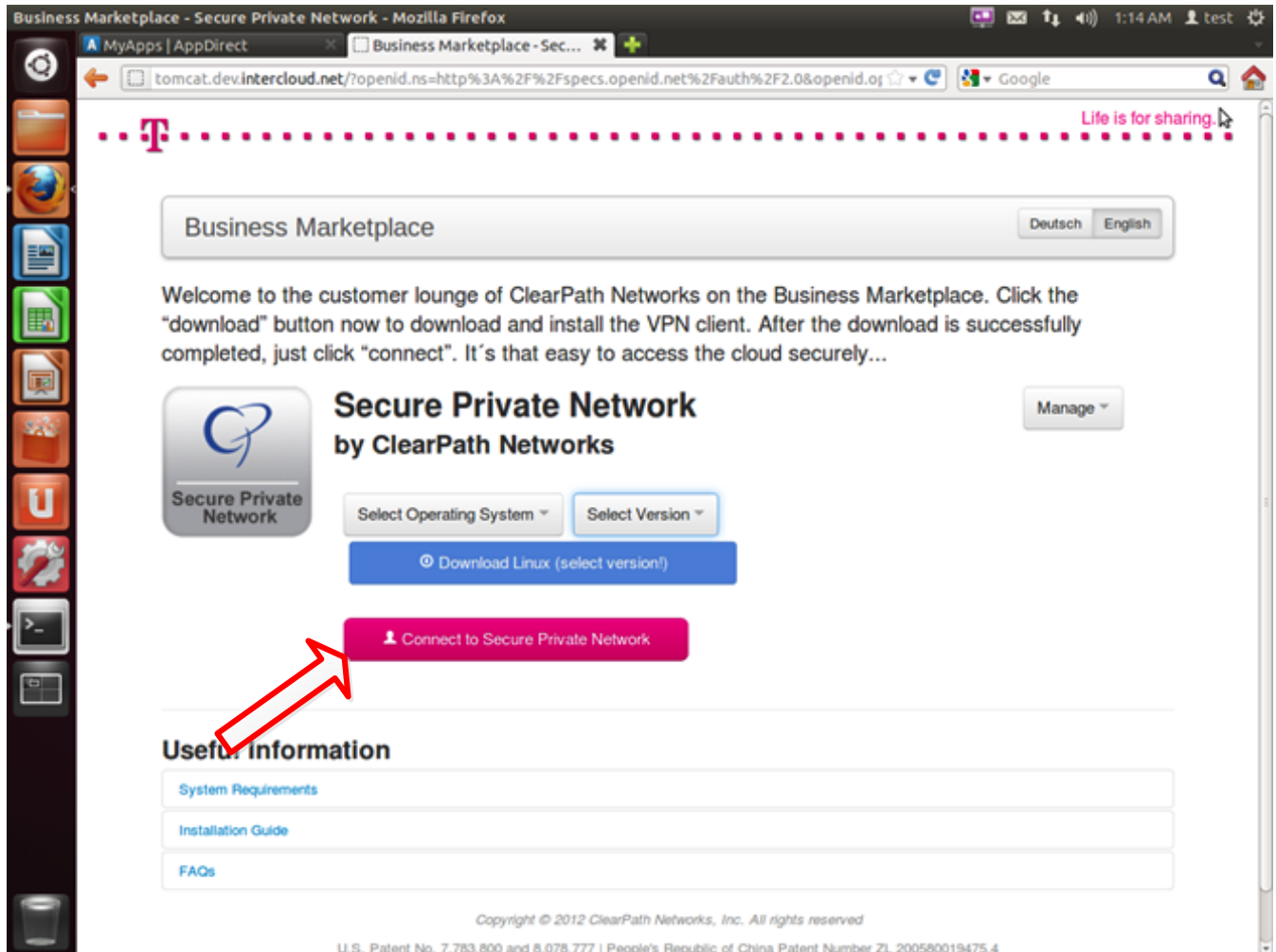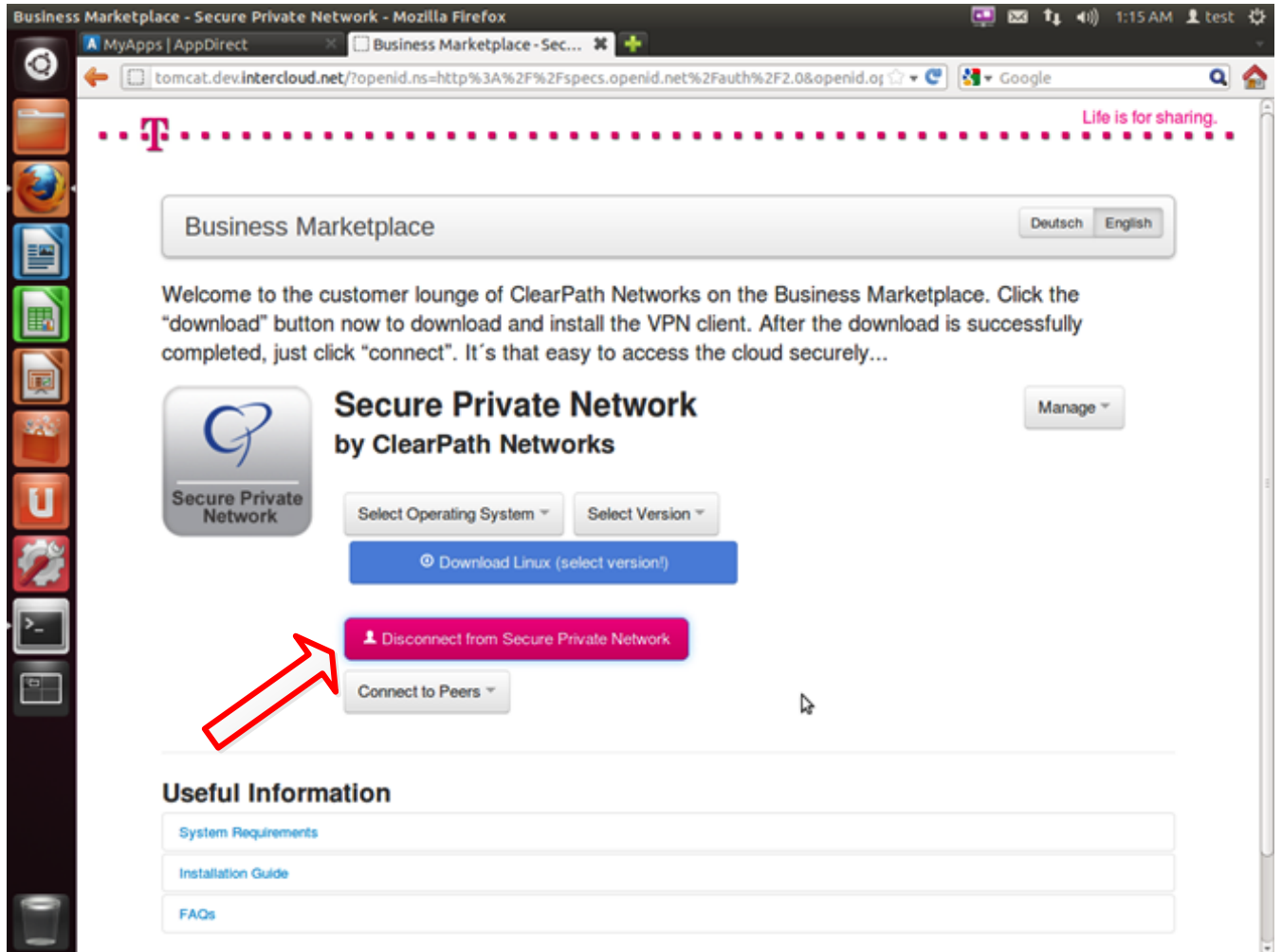
2. A dialog will appear asking the user to approve the use of *vpnrac* to connect to the Secure
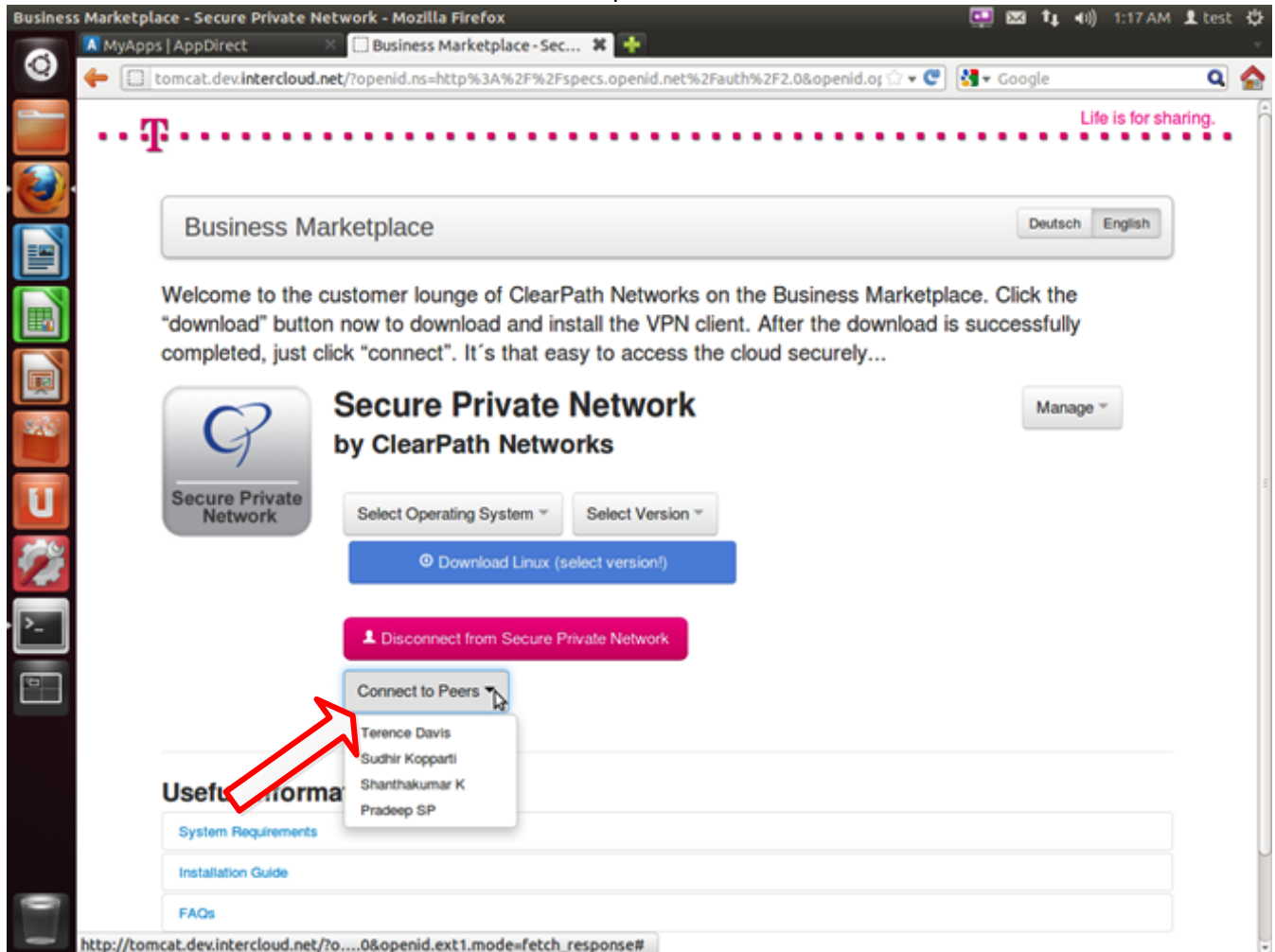Private Network. Click "OK."

3. Return to the Business Marketplace to confirm the connectivity status. If the page displays, "Disconnect from Secure Private Network" then you have successfully connected to the service.
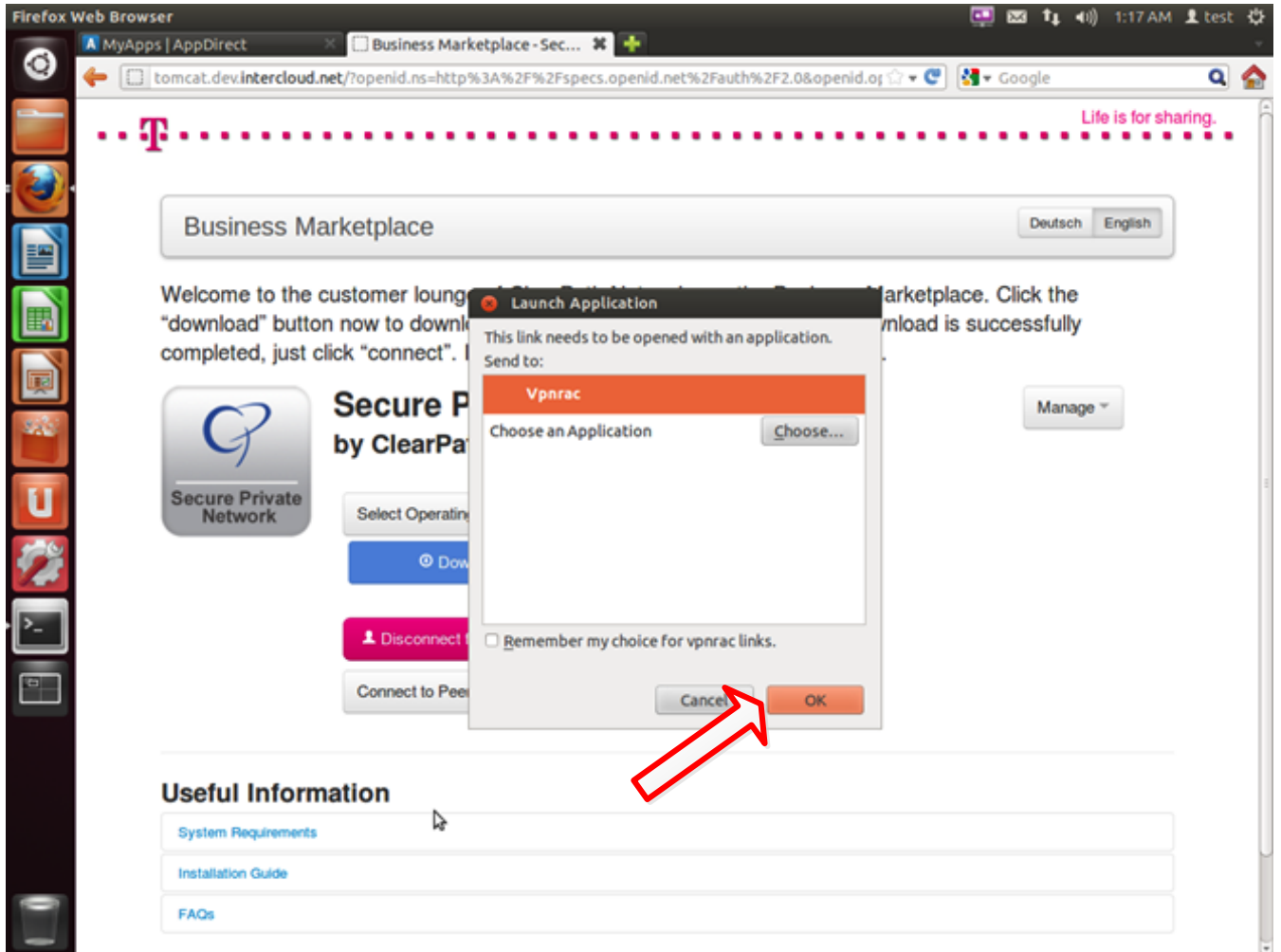

Successful connection

4. Once connected to the Secure Private Network you can access the shared resources by viewing the Business Marketplace and selecting the desired collaborator. The list of shared resources is accessed from the "Connect to Peers" drop-down.
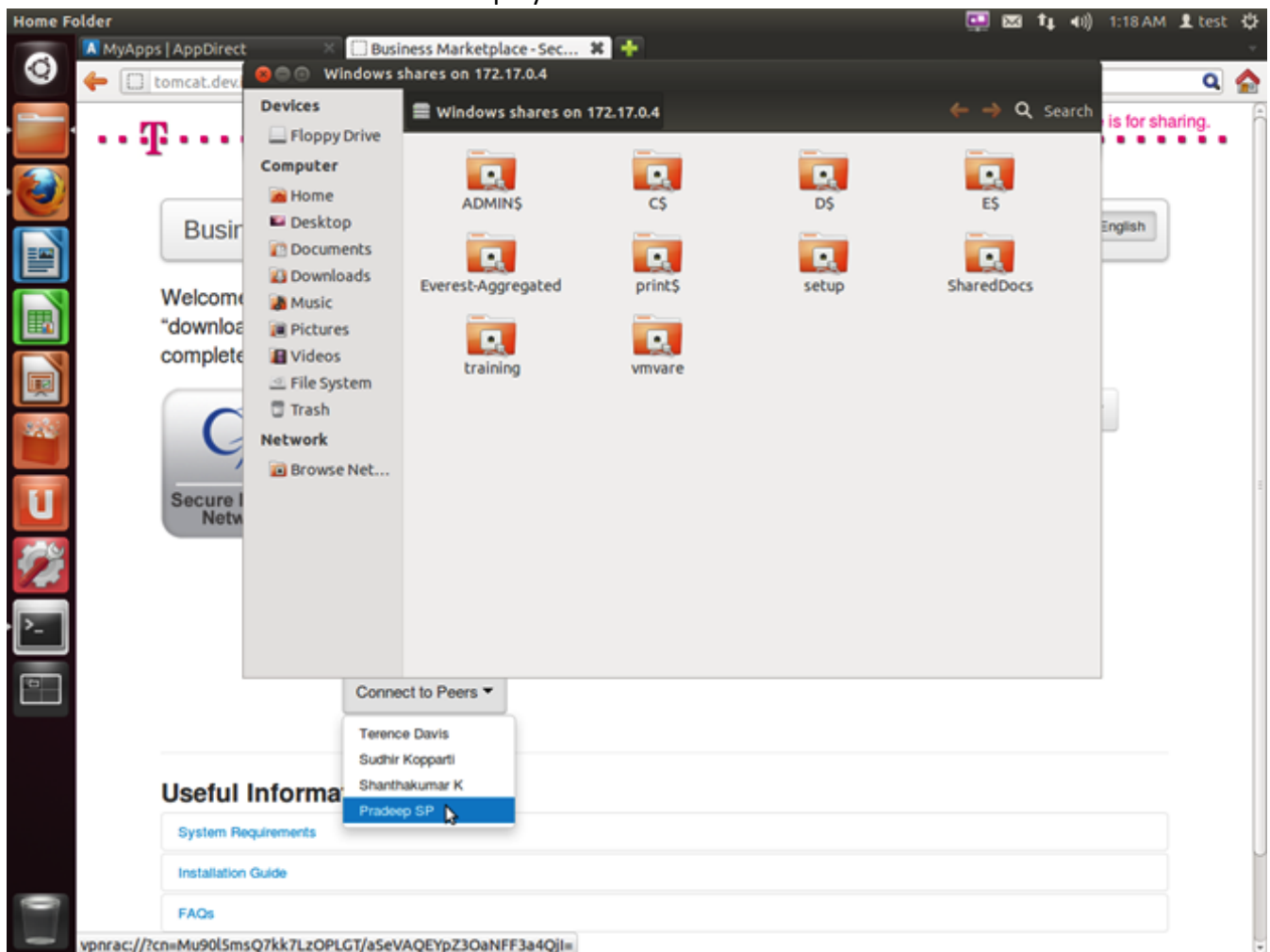
5. Upon selection of a collaborator, the *vpnrac* dialog will appear again. Select "OK" to continue.

6. The remote resources will be displayed in a folder window.

Upon a successful connection there will be a new "*tunX*" interface displayed by the *ifconfig* utility as below. In this case a new *tun0* interface was created.

```
test@Ubuntu-12: /usr/local/vpnrac
test@Ubuntu-12:/usr/local/vpnrac$ ifconfig
eth0      Link encap:Ethernet   HWaddr 00:0c:29:79:7b:46
          inet addr:10.2.55.128  Bcast:10.2.55.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe79:7b46/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:78795 errors:0 dropped:187 overruns:0 frame:0
          TX packets:174503 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:8936494 (8.9 MB)  TX bytes:245977929 (245.9 MB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:303 errors:0 dropped:0 overruns:0 frame:0
          TX packets:303 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:30857 (30.8 KB)  TX bytes:30857 (30.8 KB)

tun0      Link encap:UNSPEC  HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
-00
          inet addr:172.17.0.5  P-t-P:172.17.0.5  Mask:255.255.255.0
          UP POINTOPOINT RUNNING NOARP MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:100
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

test@Ubuntu-12:/usr/local/vpnrac$
```
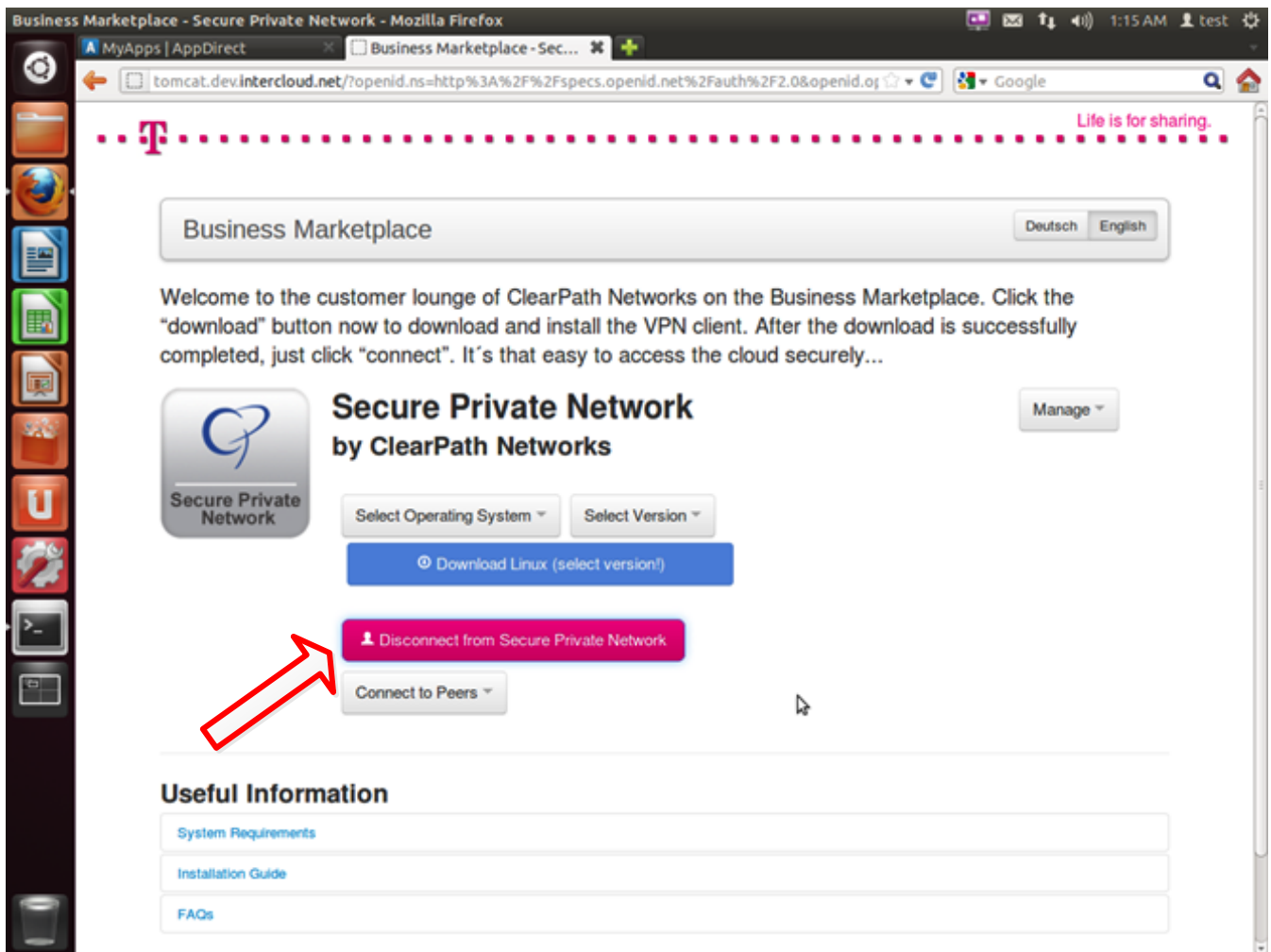
7. You can disconnect from all shared resources from the Business Marketplace by selecting "Disconnect from Secure Private Network." This action will close all active shares. Note that if there are open files the disconnection may fail and/or data may be lost.
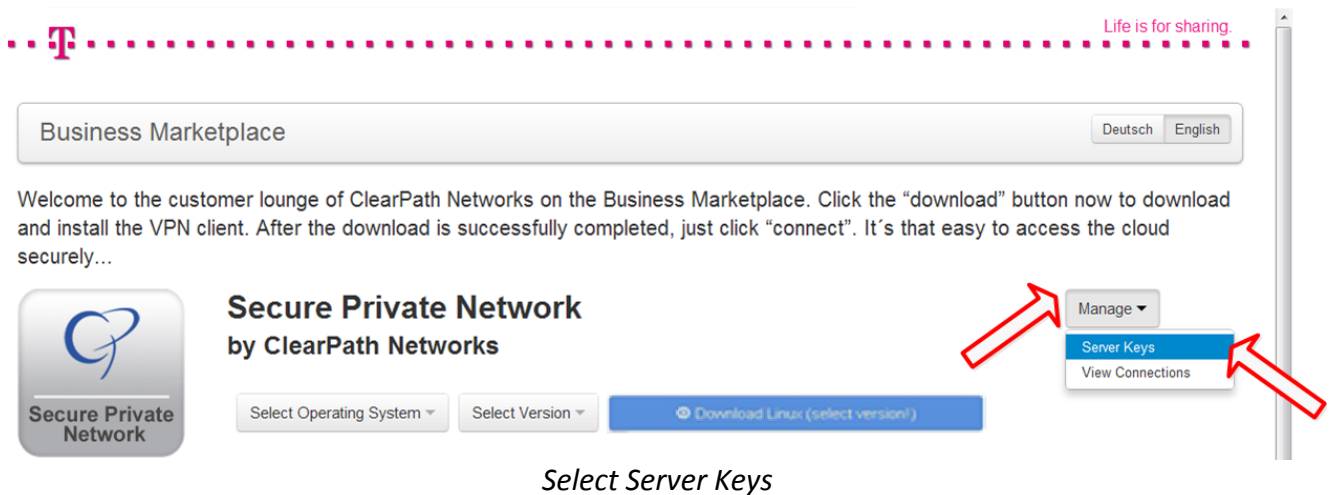

Disconnect

Note that the *vpnrac* confirmation dialog will be shown again. Click "OK" to continue with the disconnect action.
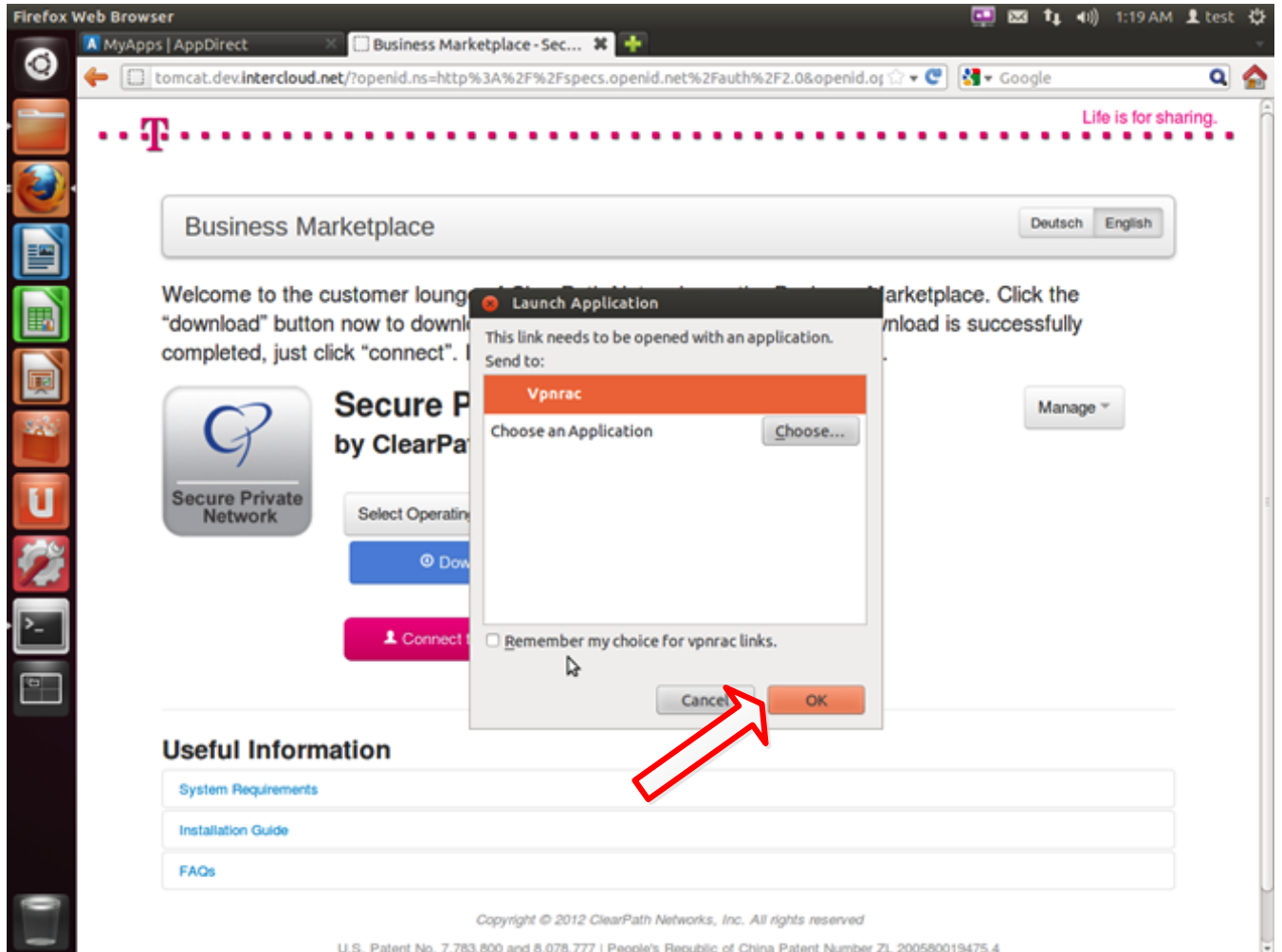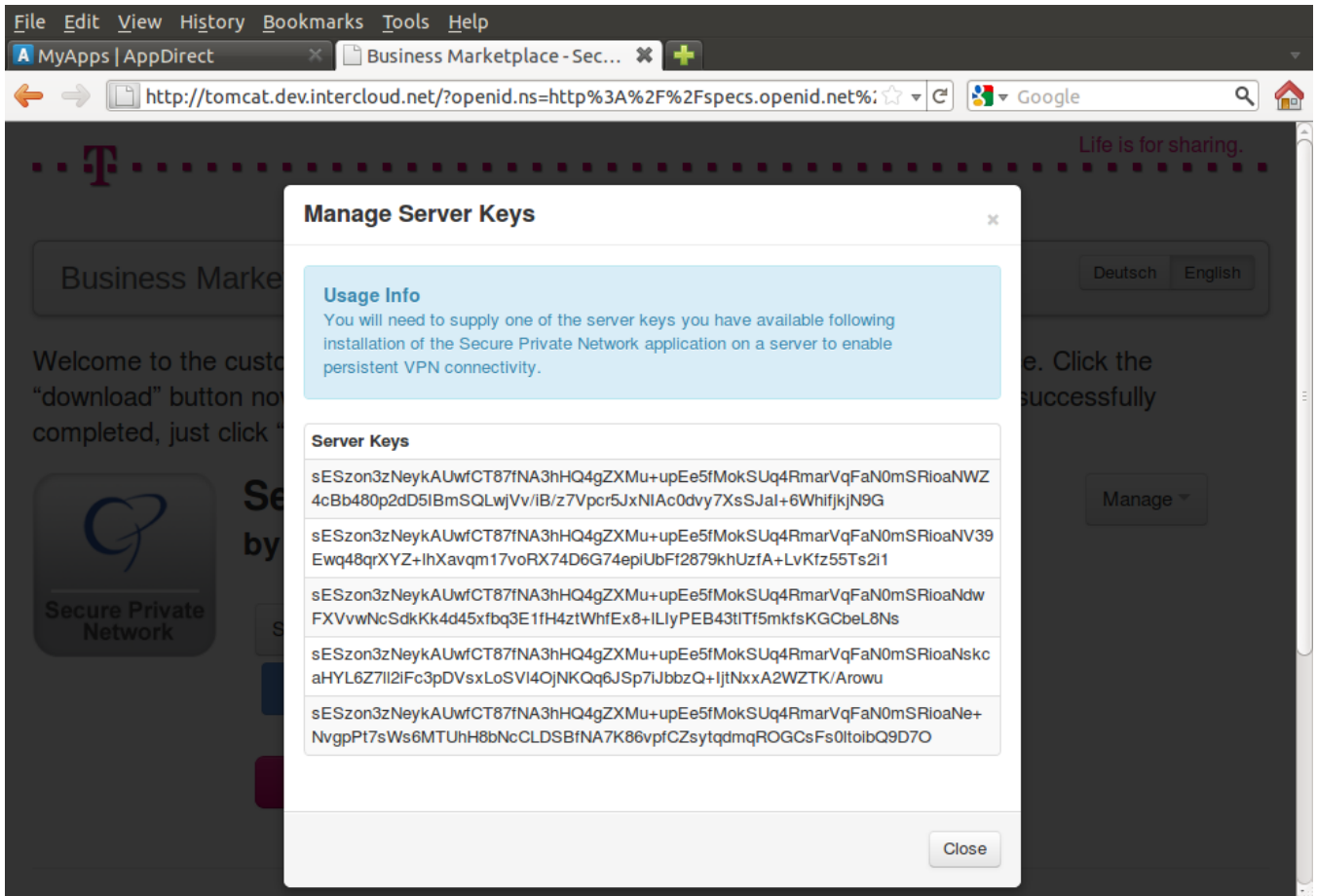
3.4. Use your Secure Private Network on Ubuntu Server

1. To use Secure Private Network with Ubuntu Server you must first obtain an activation key as provided by your admin or obtained from the Secure Private Network admin portal page as below.
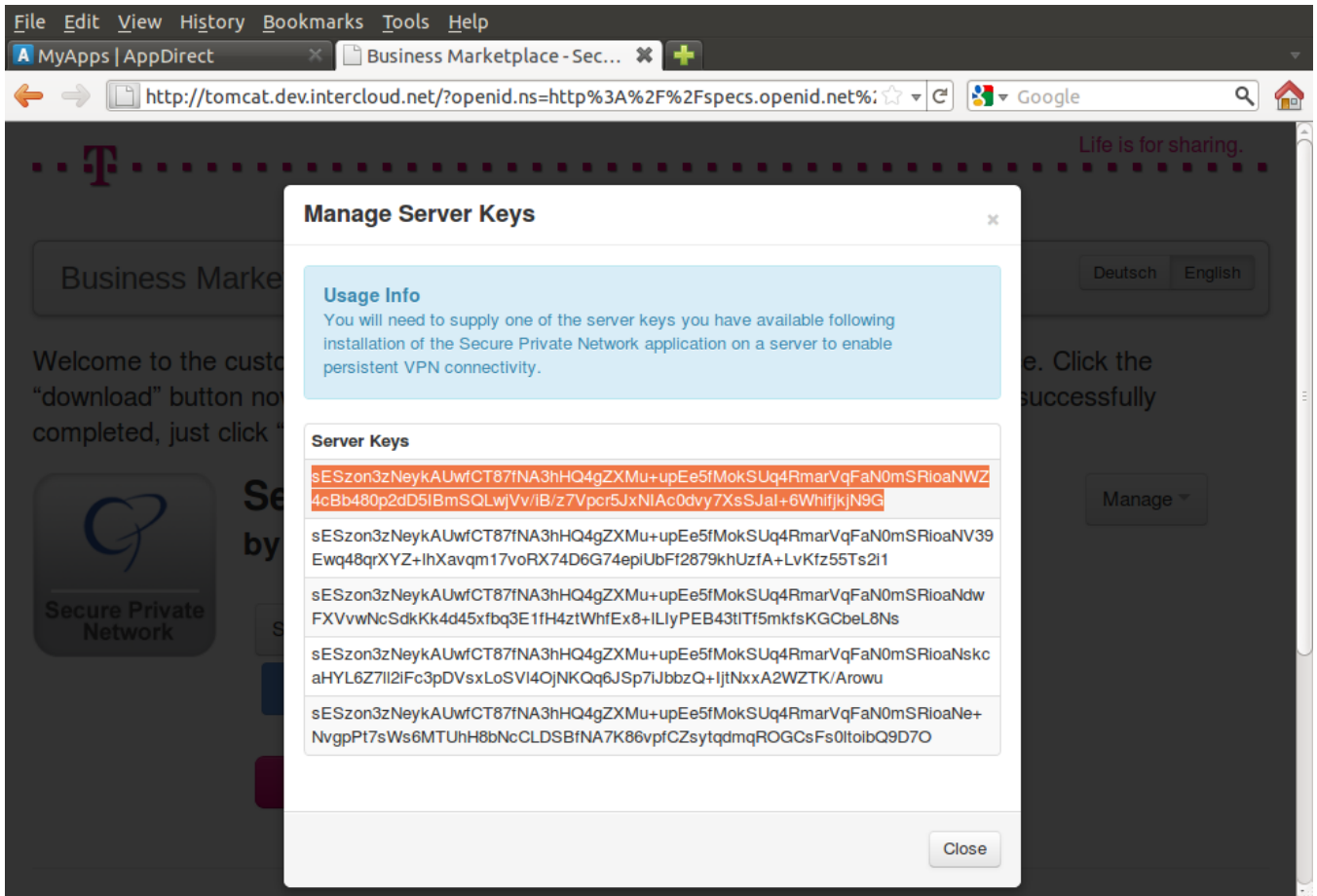

Select Server Keys

File Edit View History Bookmarks Tools Help

MyApps | AppDirect   Business Marketplace - Sec...

http://tomcat.dev.intercloud.net/?openid.ns=http%3A%2F%2Fspecs.openid.net%... Google

Life is for sharing.

Business Marke...   Deutsch English

Welcome to the custo...   e. Click the
"download" button nov   successfully
completed, just click "

Se   Manage
by

Secure Private
Network

Manage Server Keys   ×

Usage Info
You will need to supply one of the server keys you have available following
installation of the Secure Private Network application on a server to enable
persistent VPN connectivity.

Server Keys

sESzon3zNeykAUwfCT87fNA3hHQ4gZXMu+upEe5fMokSUq4RmarVqFaN0mSRioaNWZ
4cBb480p2dD5IBmSQLwjVv/iB/z7Vpcr5JxNIAc0dvy7XsSJaI+6WhifjkjN9G

sESzon3zNeykAUwfCT87fNA3hHQ4gZXMu+upEe5fMokSUq4RmarVqFaN0mSRioaNV39
Ewq48qrXYZ+IhXavqm17voRX74D6G74epiUbFf2879khUzfA+LvKfz55Ts2i1

sESzon3zNeykAUwfCT87fNA3hHQ4gZXMu+upEe5fMokSUq4RmarVqFaN0mSRioaNdw
FXVvwNcSdkKk4d45xfbq3E1fH4ztWhfEx8+ILIyPEB43tITf5mkfsKGCbeL8Ns

sESzon3zNeykAUwfCT87fNA3hHQ4gZXMu+upEe5fMokSUq4RmarVqFaN0mSRioaNskc
aHYL6Z7Il2iFc3pDVsxLoSVI4OjNKQq6JSp7iJbbzQ+IjtNxxA2WZTK/Arowu

sESzon3zNeykAUwfCT87fNA3hHQ4gZXMu+upEe5fMokSUq4RmarVqFaN0mSRioaNe+
NvgpPt7sWs6MTUhH8bNcCLDSBfNA7K86vpfCZsytqdmqROGCsFs0ltoibQ9D7O

Close

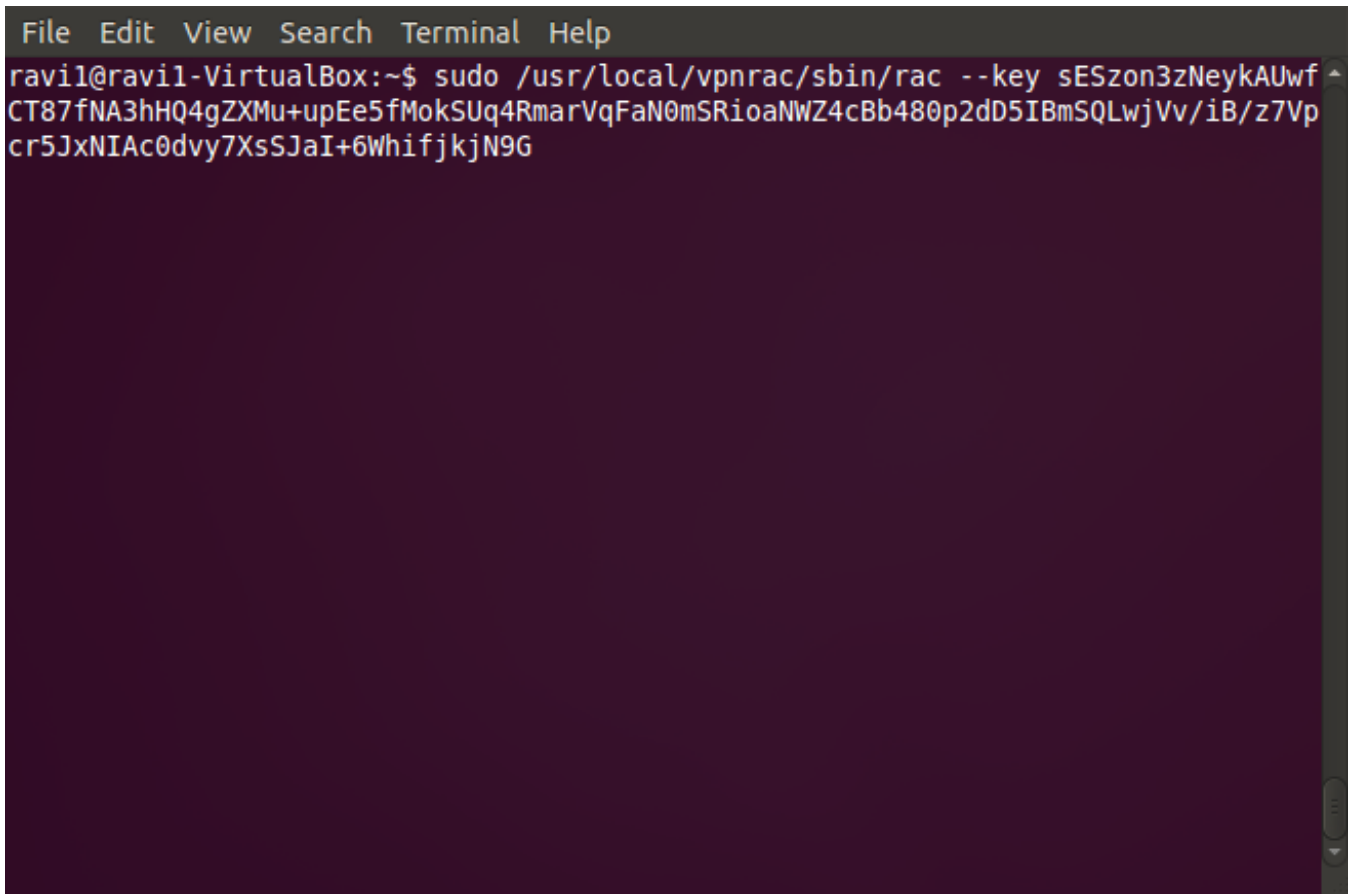*Available keys*

Select a key

2. Once the key is obtained you must execute the following command from a shell prompt after the standard client install procedure from section 3.2 above.

      sudo /usr/local/vpnrac/sbin/rac –key <activation key>

Where

      <activation key>

is the key obtained in step 1 of this section.

```
File  Edit  View  Search  Terminal  Help
ravi1@ravi1-VirtualBox:~$ sudo /usr/local/vpnrac/sbin/rac --key sESzon3zNeykAUwf
CT87fNA3hHQ4gZXMu+upEe5fMokSUq4RmarVqFaN0mSRioaNWZ4cBb480p2dD5IBmSQLwjVv/iB/z7Vp
cr5JxNIAc0dvy7XsSJaI+6WhifjkjN9G
```
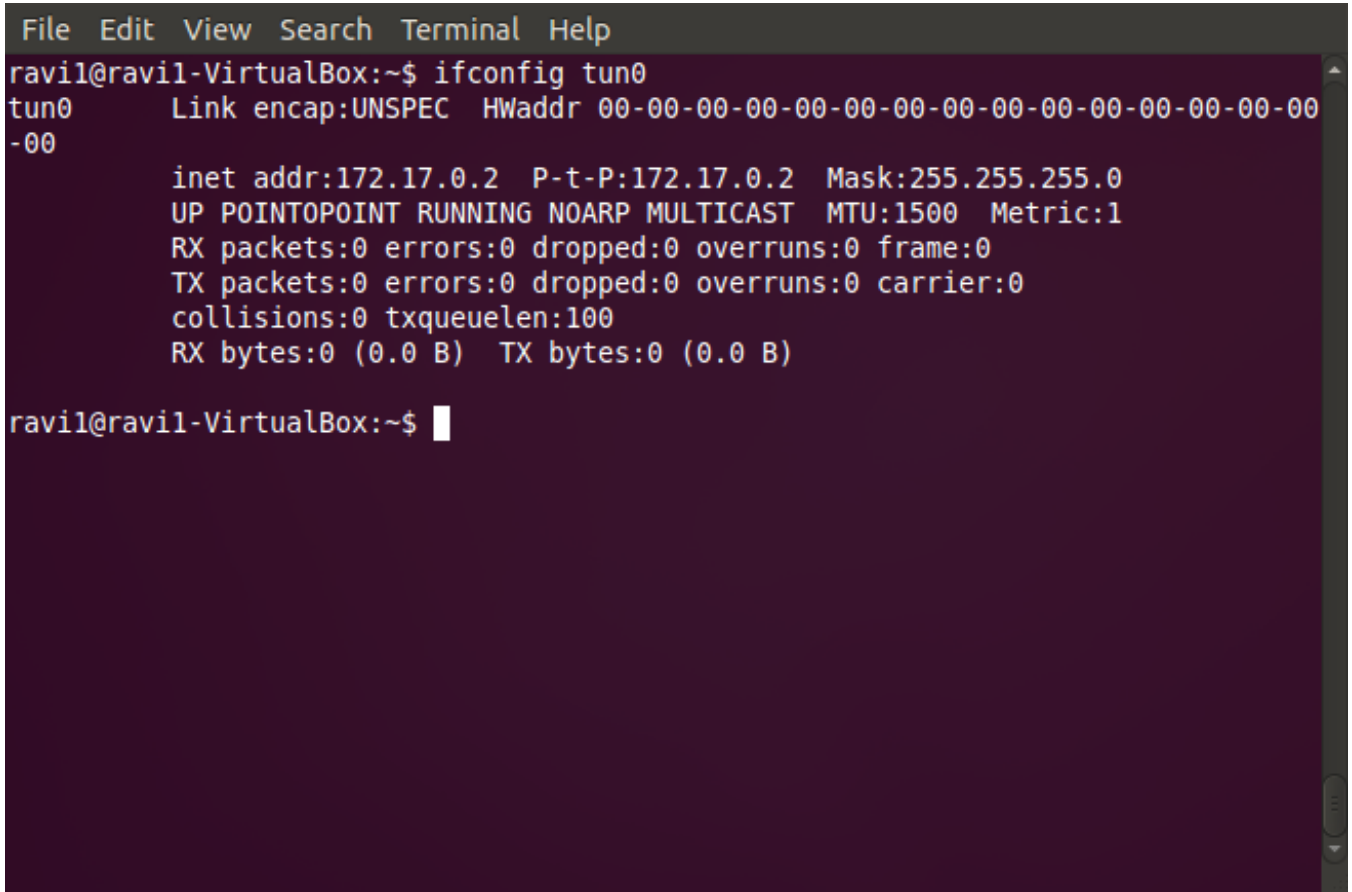
Issue server command

```
File  Edit  View  Search  Terminal  Help
ravi1@ravi1-VirtualBox:~$ sudo /usr/local/vpnrac/sbin/rac --key sESzon3zNeykAUwf
CT87fNA3hHQ4gZXMu+upEe5fMokSUq4RmarVqFaN0mSRioaNWZ4cBb480p2dD5IBmSQLwjVv/iB/z7Vp
cr5JxNIAc0dvy7XsSJaI+6WhifjkjN9G
vpnrac: Starting the VPN initialization
vpnrac: Connecting to the host tomcat.dev.intercloud.net

vpnrac: Parsing recevied response...
vpnrac: Generating VPN config...
vpnrac: Analyzing the response
vpnrac: Successfully Generated VPN RAC config
vpnrac: Cleaning up...
Info: vpnrac: Solution Provided by Clearpath Networks
Info: vpnrac: Successfully connected through VPN
ravi1@ravi1-VirtualBox:~$
```

Server command success

As in the client procedure, a successful connection will create a new "*tunX*" interface displayed by the *ifconfig* utility as below. In this case a new *tun0* interface was created.

New tunnel (tun0) created

3.5. Uninstall Secure Private Network

To remove the Secure Private Network from your Ubuntu Desktop or Server edition execute the following command from a shell prompt:

    sudo dpkg –r vpnrac