

Installing the Shrew Soft VPN Client

ShrewVPNLinux201007-01



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Installing the Shrew Soft VPN Client: Linux

This section will assist users in the download, installation, and configuration of the Shrew Soft VPN Client.

Requirements

- GB-OS 5.3.1 or higher
- Shrew Soft VPN Client
- User access permissions for Remote Access to a GTA Firewall
- The host name or an IP Address assigned to the firewall's External Interface
- Downloaded client and configuration files. All required files may be downloaded via the firewall Web interface.

Accessing the GTA Remote Access Portal for Download

To access the GTA Remote Access Portal, open a Web browser and enter the IP address or host name of your firewall. If the firewall's remote access portal is configured for a port other than 443, append with a colon and port number.

Example: `https://remote-access.gta.com:1443`

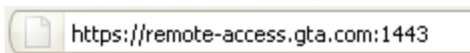


Figure 1: Location Bar with Non Standard Port

The login screen for the GTA Remote Access Portal will display. Enter your user login credentials to access the browser. If the virtual keyboard is required, you will have to use the virtual keyboard to enter your password. Use the shift key to access special characters.

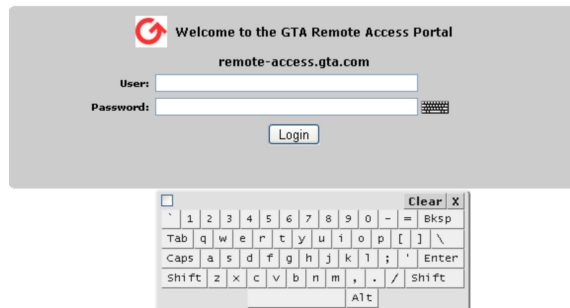


Figure 2: Remote Access Login



Note

Administrators with Remote Access privileges logging in on the administration port will see the normal firewall administration interface and the Remote Access Portal.

Downloading the IPSec Configuration Files and Installers

1. Navigate to **Remote Access>IPSec>Client** for all files needed for download.
2. Click on the **CLIENT SOURCE DOWNLOAD**. This will download Linux client source.
3. Click on the **CLIENT CONFIGURATION DOWNLOAD**. This will download the ZIP file containing the required certificates and configuration file.

Linux / Unix	
Client Source	Requires manual installation. Download
Client Configuration	Customized client configuration file used to establish a mobile IPSec connection. Download
Installation Guide	The installation guide contains instructions on how to install and configure the IPSec Client. Download

Figure 3: Linux Installer, Configuration Bundle and Installation Guide



IPSec Client Installation

Download and Install Software Dependencies

The following packages are required for installing the Shrew Soft VPN Client:

- GCC (or c++ compiler)
- Stock C libraries
- Stock C Includes
- Pthread support
- Lex (or flex)
- Bison 2.3 (or higher)
- Cmake 2.4 (or higher)
- Openssl 0.9.x
- Qt (only required for GUI)

To install these packages on Ubuntu execute the following command:

```
$> apt-get install gcc flex bison cmake openssl libssl-dev qt3-dev-tools
```

To install these packages on Fedora execute the following command:

```
$> yum install gcc flex bison cmake openssl openssl-devel qt3-devel
```

For other systems, refer to your Distribution package manager for details on locating and installing packages.

Compile the Source Code for the Shrew Soft VPN Client

1. Change to Download directory

```
$> cd ~/Downloads
```

2. Unpack the Source files.

```
$> tar -xzvf shrewsoft-client.tgz
```

3. Change to the source directory.

```
$> cd ~/Downloads/ike
```

4. Run cmake.

For GUI Installation (recommended):

```
$> cmake -DQTGUI=YES -DETCDIR=/etc -DNATT=YES
```

For non-GUI Installation:

```
$> cmake -DNATT=YES
```

5. Run make.

```
$> make
```

6. Run make install. **NOTE:** Run as root.

```
$> make install
```



Note

Copy/paste of “—” will copy as “— —”.



Configure OS

1. Create a default configuration for the IKE Daemon.

```
$> cp ~/Downloads/ike/source/iked/iked.conf.sample /usr/local/etc/iked.conf
```



Note

Most Linux systems will require the following modifications to the System Settings in order to work with the Shrew Soft VPN Client. Without the following `sysctl` setting, the kernel will drop packets received on one interface when the destination address is owned by another interface.

2. Use a text editor to edit (as root) `/etc/sysctl.conf`
3. Change the following Entries from 1 to 0 (if these values are not defined you will need to add them in order to override the default setting of 1).

```
net.ipv4.conf.default.rp_filter=0
net.ipv4.conf.all.rp_filter=0
```

4. Use a text editor to edit (as root) `/etc/sysctl.d/10-network-security.conf`
5. Change the following Entries from 1 to 0 (if these values are not defined you will need to add them in order to override the default setting of 1).

```
net.ipv4.conf.default.rp_filter=0
net.ipv4.conf.all.rp_filter=0
```

6. Reboot the PC.
7. Execute the following command to confirm settings change has taken affect:

```
$> sysctl -a | egrep rp_filter | egrep -v arp
net.ipv4.conf.all.rp_filter = 0
net.ipv4.conf.default.rp_filter = 0
net.ipv4.conf.lo.rp_filter = 0
net.ipv4.conf.eth0.rp_filter = 0
```

Import Client Configuration

1. Launch the Shrew Soft VPN Client GUI

```
$> ikea
```
2. Click on **File > Import**, and browse to your User's Downloads directory (`/home/user/Downloads`).
3. Select the `.vpn` file and click **OK**. The client will create a new connection and allow you to rename it — by default it will use the name of the configuration file.

Using the VPN Client

Establishing a VPN Connection

1. Launch the IKE Daemon. **NOTE:** Run as root.
`$>iked`
2. Launch the Shrew Soft VPN Client GUI.
`$>ikea`
3. Select the tunnel you wish to open.
4. Click on **CONNECT**.
5. Click on **CONNECT** again when the Shrew Soft Connect dialogue appears. The client will now initiate the connection to the firewall.

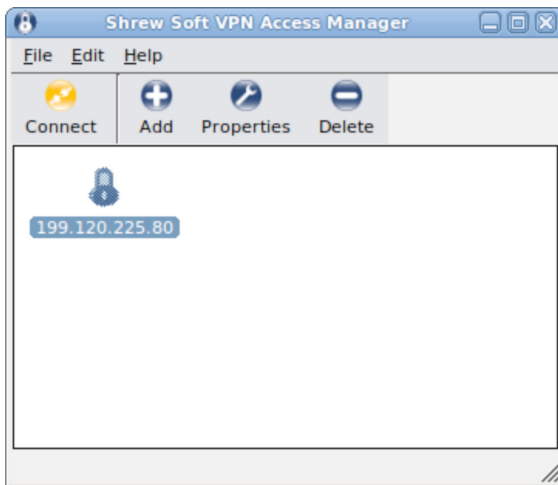


Figure 4: Shrew Soft Access Manager

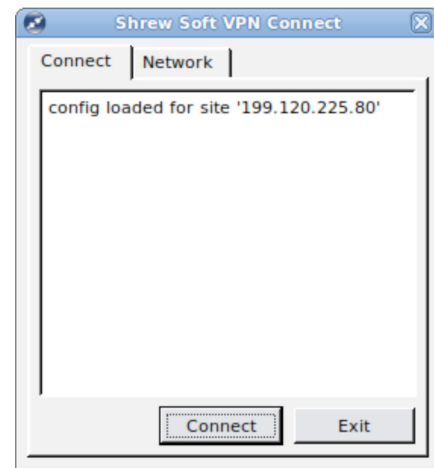


Figure 5: Shrew Soft VPN Connect

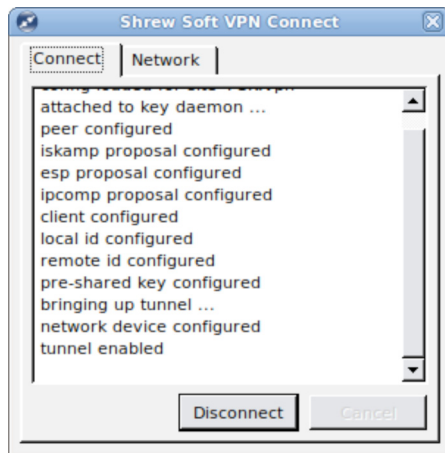


Figure 6: Tunnel Enabled Connect Tab

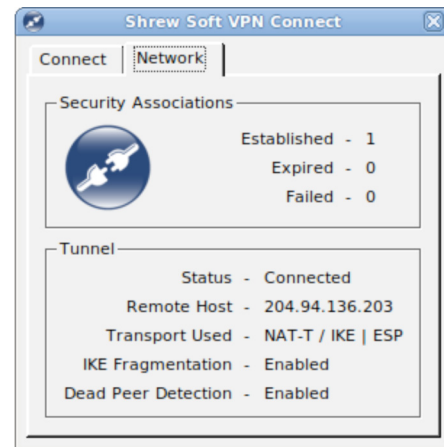


Figure 7: Tunnel Enabled Network Tab



Testing the Connection

The VPN to remote gateway is now established. To check the connection, try pinging the internal interface of the remote gateway or a host on the remote network. The Shrew VPN Client will add a Virtual Adapter for each host when active, and will route to the remote network.

```
gta@laptop:~$ ifconfig tap0
tap0  Link encap:Ethernet  HWaddr 76:55:da:23:4e:1c
       inet addr:192.168.79.129  Bcast:192.168.79.129  Mask:255.255.255.255
       inet6 addr: fe80::7455:daff:fe23:4e1c/64 Scope:Link
       UP BROADCAST RUNNING MTU:1380 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:500
       RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

gta@laptop:~$
```

Figure 8: Virtual Adapter

```
gta@laptop:~$ route -n
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
192.168.77.0 192.168.79.129 255.255.255.0 UG 0 0 0 tap0
10.11.1.0 0.0.0.0 255.255.255.0 U 2 0 0 wlan0
169.254.0.0 0.0.0.0 255.255.0.0 U 1000 0 0 wlan0
0.0.0.0 10.11.1.223 0.0.0.0 UG 0 0 0 wlan0

gta@laptop:~$
```

Figure 9: Routing Table with routes added by client

Closing the VPN Connection

Click **DISCONNECT** on the Shrew Soft VPN Connect dialogue window.

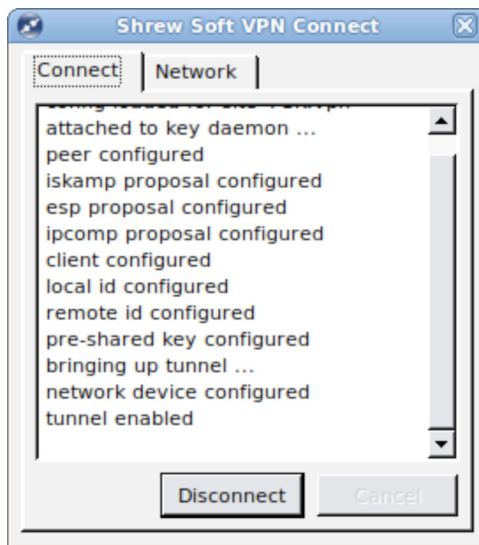


Figure 10: Shrew Soft VPN Connect - Disconnect

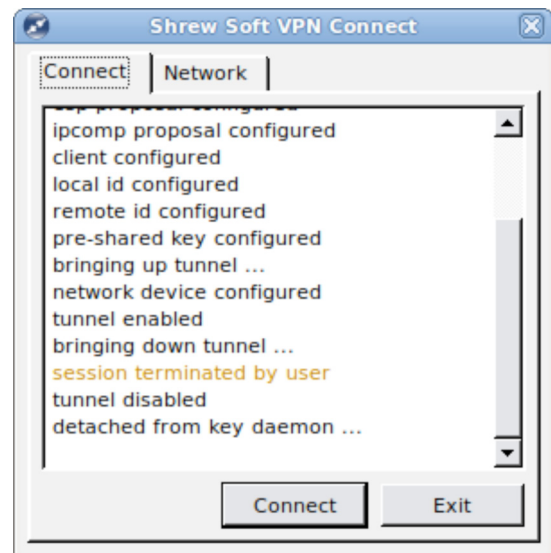


Figure 11: Disconnected Client



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