

Installing the SSL Client for Linux

SSLLinux201502-01



Global Technology Associates
3361 Rouse Road, Suite 240
Orlando, FL 32817

Tel: +1.407.380.0220
Fax: +1.407.380.6080
Email: info@gta.com
Web: www.gta.com

Installing the SSL Client: Linux

This section will assist users in the download, installation, and configuration of the SSL Client for Linux.

Requirements

- GB-OS 5.3.0 or higher
- Linux system with Tun/Tap support enabled in kernel (available with Linux 2.4 and higher)
- Root access on the Linux system
- Linux SSL Client
- User access permissions for the SSL Browser and Client on the 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 SSL Browser is configured for a port other than 443, append with a colon and port number.

Example: `https://ssl.gta.com:1443`

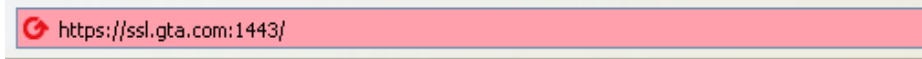


Figure 1: Location Bar with Non Standard Port

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.

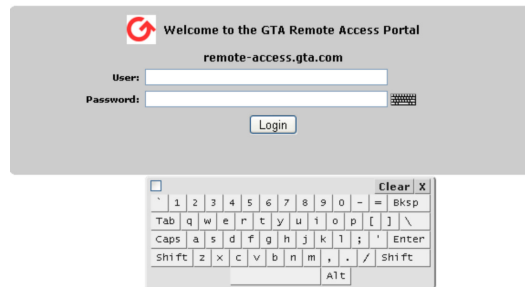


Figure 2: Remote Access Login



Note

Administrators with SSL privileges logging in on the administration port will see the normal firewall administration interface and the SSL Browser.

Download the SSL Certificates and Configuration Files

All needed files can be downloaded from the Web interface at **SSL>Client**.

1. Click on the **LINUX/UNIX – CLIENT CONFIGURATION BUNDLE DOWNLOAD**.
 - a. The users client configuration file and certificates will be downloaded in a zip file (including the CA certificate).
 - b. The configuration file should be downloaded to your home directory (example: `/home/user` or `/home/user/Download`).

Linux / Unix	
Linux / Unix Source	Requires manual installation. Download
Client Configuration Bundle	Zip file containing a customized client configuration, and the required certificates to establish an SSL Client connection. Download
Installation Guide	The installation guide contains instructions on how to install the Linux / Unix version of the SSL Client. Download

Figure 3: Linux/Unix Install Files



2. Unzip the Client Configuration Bundle.

```
> unzip client.zip
```

**Note**

This will create a folder with the firewall's host name.

3. For systems running selinux in enforcing mode, please perform the following steps:
 - a. Enable OpenVPN Home Directory Permissions.

```
> setsebool -P openvpn_enable_homedirs 1
```

**Note**

To temporarily (change will no longer be present after system reboot) set the selinux Boolean do not use the '-P' option.

- b. Restore Conetext of all of the Certificates and Key files that will be used.

```
> restorecon -v /home/user/Download/firewall.example/user.crt
> restorecon -v /home/user/Download/firewall.example/user.key
> restorecon -v /home/user/Download/firewall.example/ca.crt
```

Install OpenVPN

1. Using package manager (requires root privileges).
 - a. Ubuntu/Debian

```
> apt-get install openvpn
```
 - b. Fedora/Red Hat

```
> yum install openvpn
```
2. Source code from the firewall (requires c++ compiler).
 - a. Login to SSL Interface.
 - b. Navigate to **SSL >Client**.
 - c. Click on Linux / Unix Source download. This will download the source code.
 - d. Extract the source code.

```
> tar -xzf openvpn.tar.gz
```
 - f. Change directories to the top-level of the extracted folder.
 - g. Make and Install the Package.

```
> ./configure
> make
> make install
```
3. Download and Install from OpenVPN.
 - a. Download - <http://www.openvpn.net/index.php/open-source/downloads.html>
 - b. Install Instructions - <http://www.openvpn.net/index.php/open-source/documentation/howto.html#install>

Opening the Tunnel Using Command Line

1. Open a terminal.
2. Change directory to the location the downloaded zip file was extracted.
> `cd /home/user/Download/`
3. Execute Open VPN with the Configuration File (requires root privilege).
> `openvpn --config firewall.example.ovpn`
4. Enter User Credentials (open VPN will prompt for your SSL User Credentials).
> Enter Auth Username: `user`
> Enter Auth Password:

Install Network Manager Plug-In

Not required if using OpenVPN command line.

1. Using package manager.
 - a. Ubuntu/Debian
> `apt-get install Network-Manager-openvpn`
 - b. Fedora/Red Hat
> `yum install NetworkManager-openvpn`



Note

For Gnome versions of Fedora and Ubuntu add “-gnome” at the end of the command.

Example: `apt-get install Network-Manager-openvpn-gnome`

Configure OpenVPN using Network Manager

1. Right click on the **NETWORK MANAGER** icon.
2. Select **EDIT CONNECTIONS**.

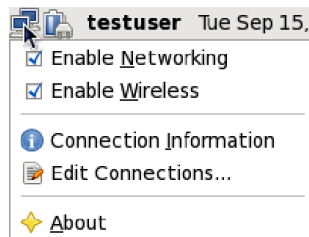


Figure 4: Network Manager Options

3. Select the **VPN** tab and click **ADD**.

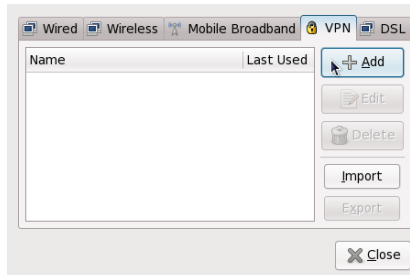


Figure 5: VPN Tab

4. Select the connection type **OPENVPN** and click **CREATE...**



Figure 6: Select Connection Type

5. Enter a **CONNECTION NAME**.
6. Enter **GATEWAY**. This will be the IP address of the firewall that you are connecting.

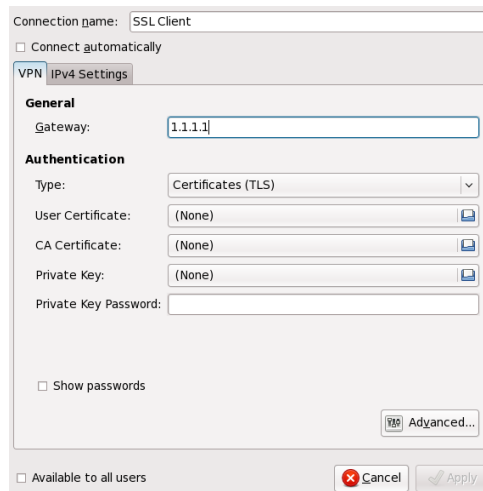


Figure7: Connection Name and Gateway

7. Select **TYPE: PASSWORD WITH CERTIFICATES (TLS)**.
8. Enter the **USERNAME AND PASSWORD** configured for your user on the firewall.
9. Select the **USER CERTIFICATE**. This is the user certificate included in the install bundle.
10. Select the **CA CERTIFICATE**. This is the firewall's CA certificate included in the install bundle.
11. Select the **USER KEY**. This is the private key associated with the User Certificate included in the install bundle.

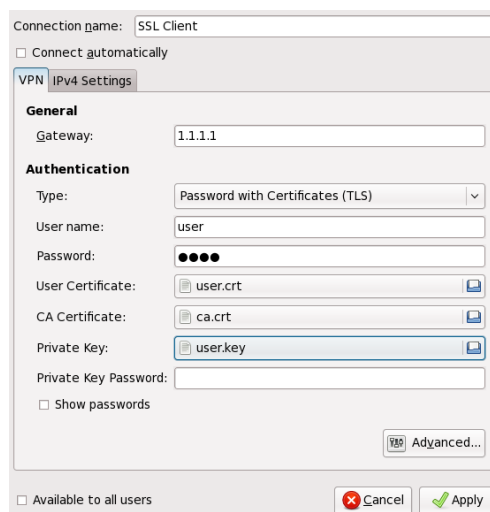


Figure 8: Configure the Connection

12. Click **ADVANCED...**
13. Select the **GENERAL** tab.
14. Enable **USE LZO DATA COMPRESSION** and **USE A TCP CONNECTION**.

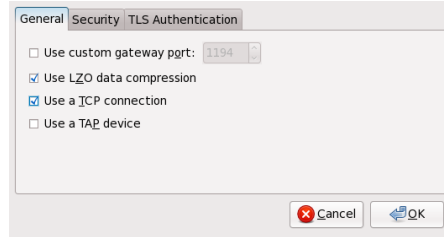


Figure 9: General Tab

15. Select the **SECURITY** tab.
16. Select **AES-192-CBC** from the **CIPHER** drop down.
17. Select **SHA-1** from the **HMAC AUTHENTICATION** drop down. The Default is SHA-1.

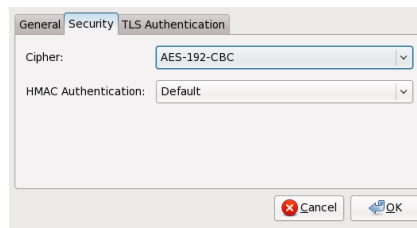


Figure 10: Security

18. Click **OK**.
19. Select the **IPV4 SETTINGS** tab.

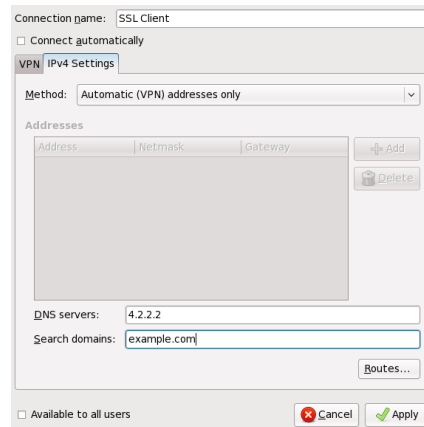


Figure 11: IPV4 Settings

20. Click on **ROUTES**.
21. Check the option **USE THIS CONNECTION ONLY FOR RESOURCES ON ITS NETWORK** (without this option the routes will be such that all traffic will be forced through the OpenVPN client).

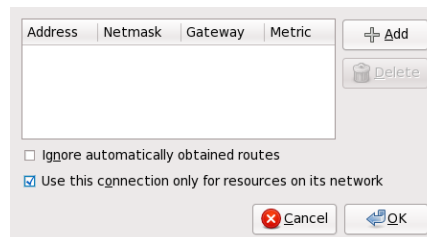


Figure 12: Routes

22. Click **OK**.



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Technical Support

GTA includes 30 days “up and running” installation support from the date of purchase. See GTA's Web site for more information.

GTA's direct customers in the USA should call or email GTA using the telephone and email address below. International customers should contact a local Authorized GTA Channel Partner.

Tel: +1.407.380.0220 Email: support@gta.com

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