

Instructions to encrypt and 'hide' BitTorrent traffic data

Through the previous analysis articles on TipsMake.com, we understand the basics of BitTorrent as a form of storing and sharing files and data online. Besides, the transmission and sharing of unallocated files and data is a contradictory form, for example when we use and download files from a fixed source.

TipsMake.com - In the following article, we will introduce and guide you some essential factors to apply in 'hiding' and encrypting traffic through BitTorrent.

What are these essentials?

Through the previous analysis articles on **TipsMake.com** , we understand the basics of BitTorrent as a form of storing and sharing files and data online. Besides, the transmission and sharing of unallocated files and data is a contradictory form, for example when we use and download files from a certain fixed source, upgrade or update. Update the new version of the application . or simply understand that the developer software is transmitted directly to the user.

The method of peer-to-peer data file transfer was born and replaced the concept. When you use **BitTorrent** , in essence we don't have to download files from a single source, but from many different sources. However, when you directly participate in this download process, the privacy of personal information is not guaranteed, and this is one of the risks users must accept when using **BitTorrent** .

To protect yourself against the risks that may occur at any time in this **BitTorrent** world, many people have chosen and used a solution to encrypt and hide BitTorrent **traffic** . However, this approach also has certain advantages and disadvantages. For example:

- Your Traffic BitTorrent will be temporarily hidden, and the IP address that others see is not the user's real IP address. If you have applied the following encryption method, even the provider - ISP will not know what you have been doing, and from this point, users can freely download via BitTorrent without have to worry about anything.

- However, your download speed will be significantly limited when applying this method.

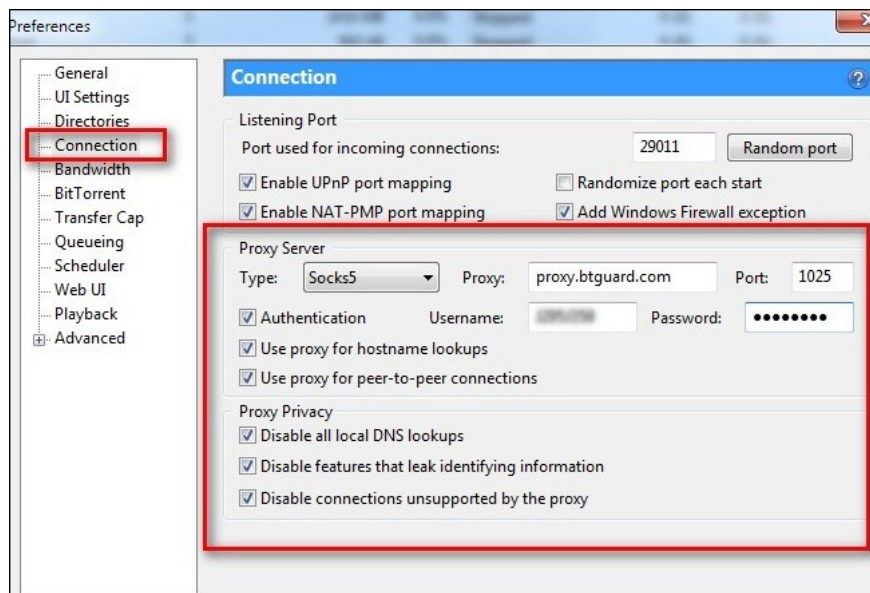
To do this, you need to prepare some of the following requirements:

- A **BitTorrent** client, most typically uTorrent
- A **proxy / SSH** protocol, in this test we use BTGuard

- To encrypt the data downloaded via BitTorrent, you will need to apply an extra layer of security through the proxy server when connecting to the tunnel after encryption. We recommend using BTGuard and the free PuTTY program.

In the lower part of the article, we will cover some basic steps to configure and set up any **SOCKS** proxy to work with **uTorrent** (or other client applications).

Set up uTorrent:



First, start uTorrent, open **Options> Preferences** (or press **CTRL + P**) to open the **Preferences** control window and open the **Connection** section. Here, you fill in the required information into the corresponding fields:

- Select Type as **SOCKS5**
- Proxy: **proxy.btguard.com**
- Port: **1025**

Check the box for **Authentication** and continue to fill in **BTGuard** account in the **Username** and **Password** section (if you use other services, just change the same parameters). Next, check all the boxes under **Authentication** section including **Use proxy for hostname lookups** and **Use proxy for peer-to-peer connections**, as well as boxes in **Proxy Privacy** section: **Disable all local DNS lookups**, **Disable features that leak identifying information**, and **Disable connections unsupported by the proxy**. Then restart **uTorrent** to apply these changes.

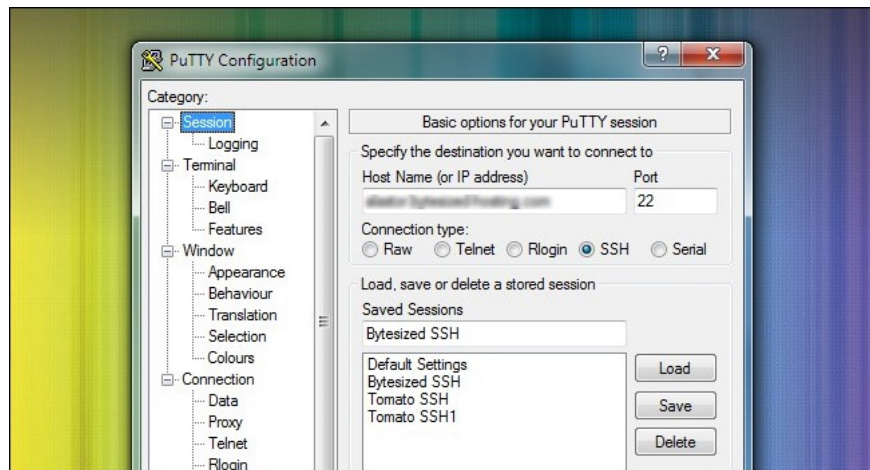
Encryption process:

In fact, the process of encrypting data via BitTorrent can still be detected by Internet service provider - **ISP**, besides the download speed is also affected quite a lot as we mentioned above. BTGuard has provided users

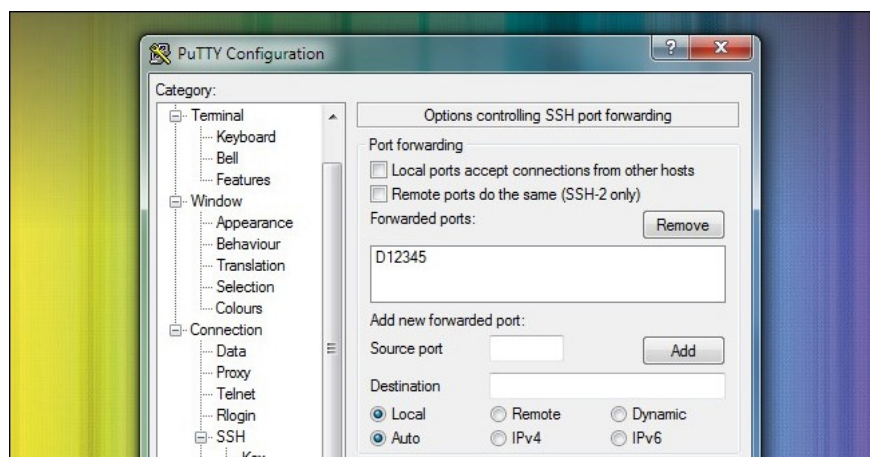
with a built-in proxy encryption tool, and if you want to use this utility, download it here. Install this program in folder **C: BTGUARD** (this step is extremely important, because if you change the directory structure, the service will not work properly). Then, launch the application, re-open uTorrent and the **Preferences** panel, replace **proxy.btguard.com** with **127.0.0.1** (your computer's local IP address), keep the other settings and restart uTorrent one Again. And then, we have completed the process of connecting to the **BTGuard** server, but the entire data traffic between uTorrent and other shared servers will be encrypted.

On the other hand, if you want to use the SSH service to connect to the server and encrypt it separately, you will need to use PuTTY to connect to SSH and create a local proxy for uTorrent traffic. Note that if you have BTGuard as well as the above support tool, you should skip this step, in case of using other services, continue to refer to the lower part of the article.

PuTTY is a Telnet / SSH client application for Windows and Linux that allows users to easily identify traffic data through encrypted tunnels. After downloading and installing PuTTY on your computer, starting the program, the first screen displayed is Session. Here, you enter the information and address of the service provided SSH, the default SSH port is **22** , check the SSH box, continue and name the session to use in the next time:

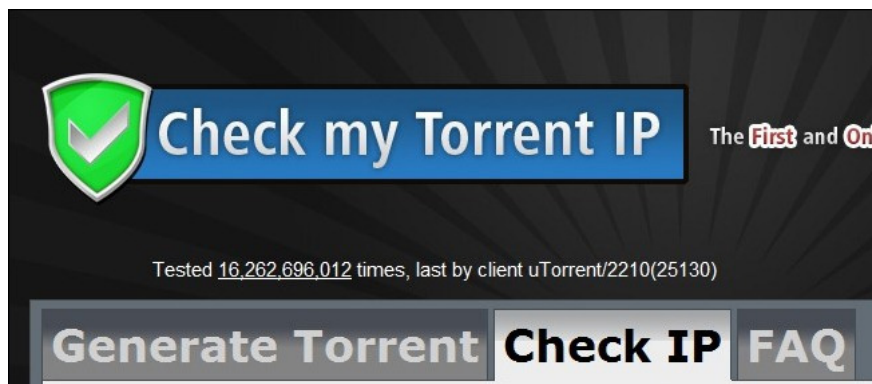


Then, go to **Connections> SSH** , where we will need to create a separate port value. Enter the value in the **Source** box (you can fill in any number as long as it is not allowed to coincide with the existing ports on the system, in this test it is **12345**), select **2 Dynamic** and **Auto** boxes, then press **Add** :



Save the changes of this **Session** section by pressing the **Save** button outside. Next, select **Open** to open SSH tunnel to SSH host and log in with the above information. Once logged in via **PuTTY** with the above credentials, we were able to use PuTTY as a **SOCKS** server. Open **uTorrent** and **Preferences** , set the specifications here like **BTGuard** except for the IP address part **127.0.0.1** (proxy server on the system), change the **Port** number to **12345** , and leave the **Authentication** section blank.

Check:



When you set up a web browser with a proxy server, access and check the IP address you are using through some online support services like WhatIsMyIP. What about **BitTorrent** ? The same test process with BitTorrent is not so simple.

In fact, after setting up the uTorrent activity feature through some of the above, visit this address. Here, you open **Generate Torrent** card, then save this torrent result file to your computer, then open it with **uTorrent** , similar to the image below:

Name	#	Size	Done	Status
↓ CheckMyTorrentIP.jpg	6	143 kB	0.0%	Downloading
↓ [DHT]	1	100 kB	86.1%	Stopped
↓ [Local Peer Discovery]	1	100 kB	0.0%	Stopped
↓ [Peer Exchange]	1	100 kB	0.0%	Stopped

Click on the torrent section and check the information in the display section at the bottom of the window. Click the **Trackers** tab, the information here is the signal returned from the tracker (this test is tracker **CheckMyTorrentIP**):

Name	Status	Update In
[DHT]	not allowed	
[Local Peer Discovery]	not allowed	
[Peer Exchange]	not allowed	
http://www.checkmytorrentip.com/anno...	Warning: Your torrent client IP is 85.17.74	47s
udp://www.checkmytorrentip.com:557/a...		updating..

The IP address listed here is the IP address of the new proxy service. If these IP addresses do not match the above setup steps, please check again. Besides, while accessing **CheckMyTorrentIP** and selecting the **Check IP** tab, we will see all the IP addresses that your torrent file has connected to:

IP address	Last Seen (GMT)	UDP	User agent	Country	Delete
208.71.100.100	Oct 11 20:50:48	YES	uTorrent/2210(25130)	Canada	Delete
85.131.100.100	Oct 11 20:46:41	YES	uTorrent/2210(25130)	Germany	Delete
85.131.100.100	Oct 11 20:53:55	YES	uTorrent/2210(25130)	Germany	Delete
85.131.100.100	Oct 11 20:52:56	YES	uTorrent/2210(25130)	Germany	Delete
85.17.7.100	Oct 11 20:55:59	YES	uTorrent/2210(25130)	Netherlands	Delete

Good luck!

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