Transmission Bittorrent Primer

"Whomsoever diggeth a pit, shall fall in it" - Marley,B.
(You reap what you sow)

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1 Overview

Transmission is a Bittorrent server that can be deployed on a computer or dedicated seedbox. It's installable with apt-get install transmission-daemon. There is transmission-remote, and transmission-remote-gtk to view the torrents over the LAN.

2 Setup Notes

I setup transmission behind a VPN, and forward ports appropriately. In order to do this, I have an outbound VPN from my LAN that goes to a remote server, then the ports for transmission are open on the remote server.

2.1 Setup Start

Install openvpn road warrior from Nyr on github. This is deployed on the remote VPS. Create a client certificate and install that on the LAN seedbox.

On server you need to forward ports:

```
iptables -t nat -I PREROUTING -i eth0 -p tcp --dport 52000 \
-j DNAT --to-destination 10.8.0.2:52000
iptables -t nat -I PREROUTING -i eth0 -p udp --dport 52000 \
-j DNAT --to-destination 10.8.0.2:52000
```

In fact, you probably only need one, but here we are opening TCP and UDP. This example assumes you are using the default transmission ports. It's advised to change the default ports.

On transmission daemon client, you don't need anything (for iptables). The remote VPN server does all firewall routing.

Test that the port is open in Transmision remote gtk's settings. If it's not, diagnose with tcpdump.

3 What can go wrong

3.1 Changing transmission configs

In order to change any settings.json of transmission, you must stop transmission. Otherwise, the running program will overwrite / ignore your changes.

3.2 /var/lib/transmission/config/settings.json

Make sure peer port is 52000, or whatever you set it to. Disable random peer port (shouldn't be enabled by default).

make sure bind-address ipv4 has your vpn address, or make it

0.0.0.0. If you have it to a previous or incorrect ipv4 address, it will look like * (for all ports) in your # netstat -ano , but it just won't work. **TRAP**

3.3 All Bittorrent traffic through Transmission

If your vpn for all the traffic is working correctly when you examine ifconfig you will see the packet numbers for eth0 and tun0 be comparable in numbers.

if it seems like eth0 is moving more packets than tun0, your tunnel is not working the torrent client is leaking.

Verify it by doing either a netstat or more helpfully a tcpdump for the local interface

3.3.1 Block WAN traffic

You can block the WAN traffic that isn't from the VPN to the transmission daemon at the router.

So wan - no vpn - router - seedbox – BLOCK and on top of that (insert for iptables, not append)

Wan - yes vpn - router - seedbox – ALLOW

3.4 RPC

RPC on transmission. This is the protocol that you can access transmission through from another machine.

Problem: Only works through http. If you want it on a VPS, you have a problem (It's not encrypted and passwords are in plain text). There's no way to access the Seedbox remotely (securely).

Solution: Use it through a VPN tunnel. e.g. Transmission-remote-gui.

Force binding of RPC to be only the TUN IP address as well. This way RPC is not accessible from WAN.

3.5 Crashes due to high torrent count

I've used a Beaglebone with transmission, and eventually (after about 400 torrents) found instability. Transmission-daemon would crash. Instead, I moved onto x86 hardware, and the problems have mostly gone away. It's possible to tune transmission to connect to less peers, or have less torrents active if you are having stability problems. This lowers your seeding ability, but brings stability back. Ideally, you should use server motherboards / hardware.

Another thing to consider is the SATA controller for your HD. If you are using a NAS, or external USB enclosure, there can be some controllers which perform more reliably.

4 Conclusion

Basically:

- install nyr on server, then make cert for client and setup
- server, add two prerouting commands (just these two!)
- client, double check transmission settings.json if necessary.
- client, watch /var/log/transmission/, and verify the port is open via transmission-remote-gtk