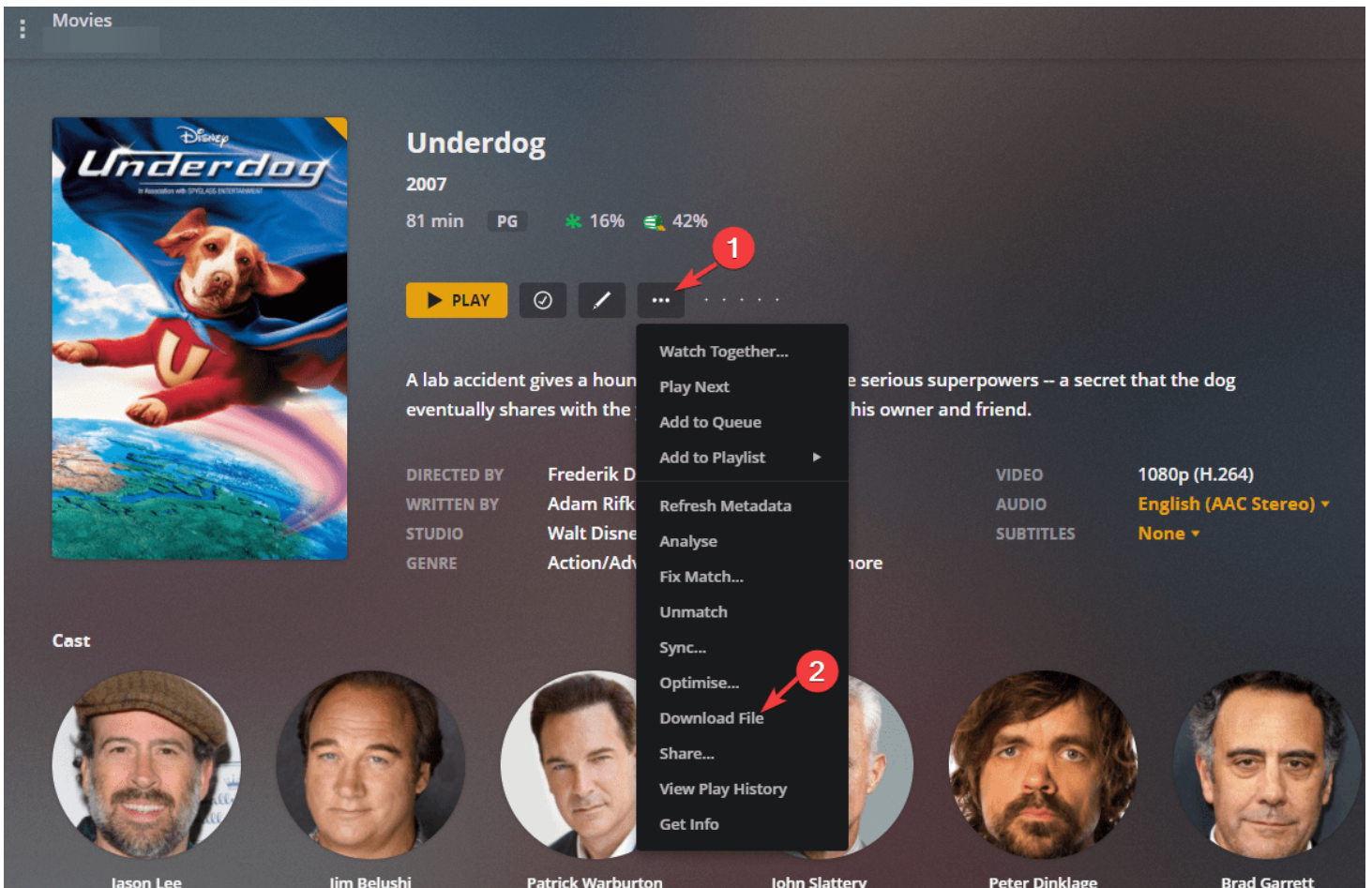# Experience buffering?
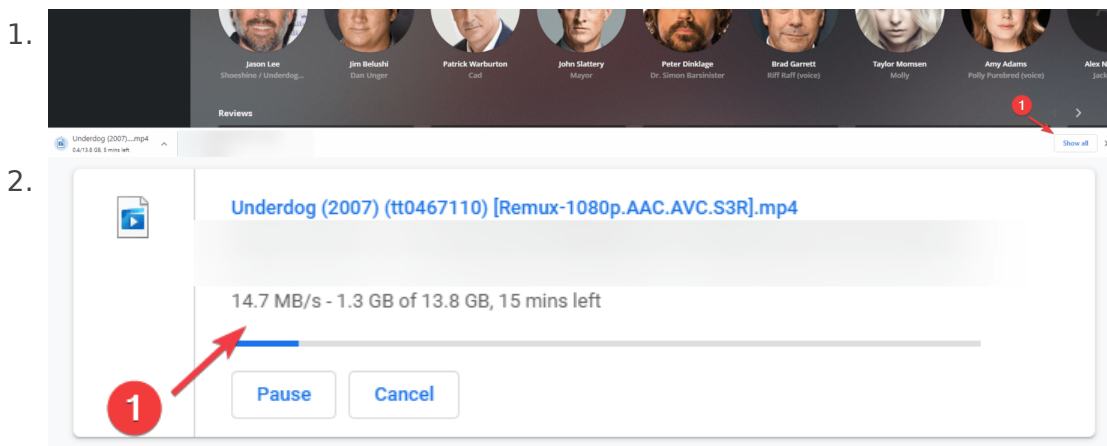
Buffering are typically caused by peering issues

Peering issues can be mitigated by enabling a CDN, before picking the appropiate CDN to enable(if any) please follow the guideline below to determine if you suffer from peering issues, and if so, which CDN might be most helpful to you

Please follow these steps below so we can firstly find out what's wrong

1. Find a random movie in your Plex library via https://plex.tv
2. Download the file as shown in the image above, note the download speed, what speed do you get?
    1. Check the speed in the browser download manage

        1.

        2.

3. What is your internet speed? Check with https://speedtest.net and then convert your result

from Mbps to MB /s using this tool https://www.gbmb.org/mbps-to-mbs

4. Download this file from Hetzner: https://speed.hetzner.de/10GB.bin What speed do you get? (Same as no CDN enabled)

5. Download this file from ping.online.net: http://ping.online.net/10000Mo.dat What speed do you get?

Enter the results of the above 5 steps, in our test to get a quick response on what could be the cause of your buffering!

Test located here

So you have peering issues? Which CDN would help you best?

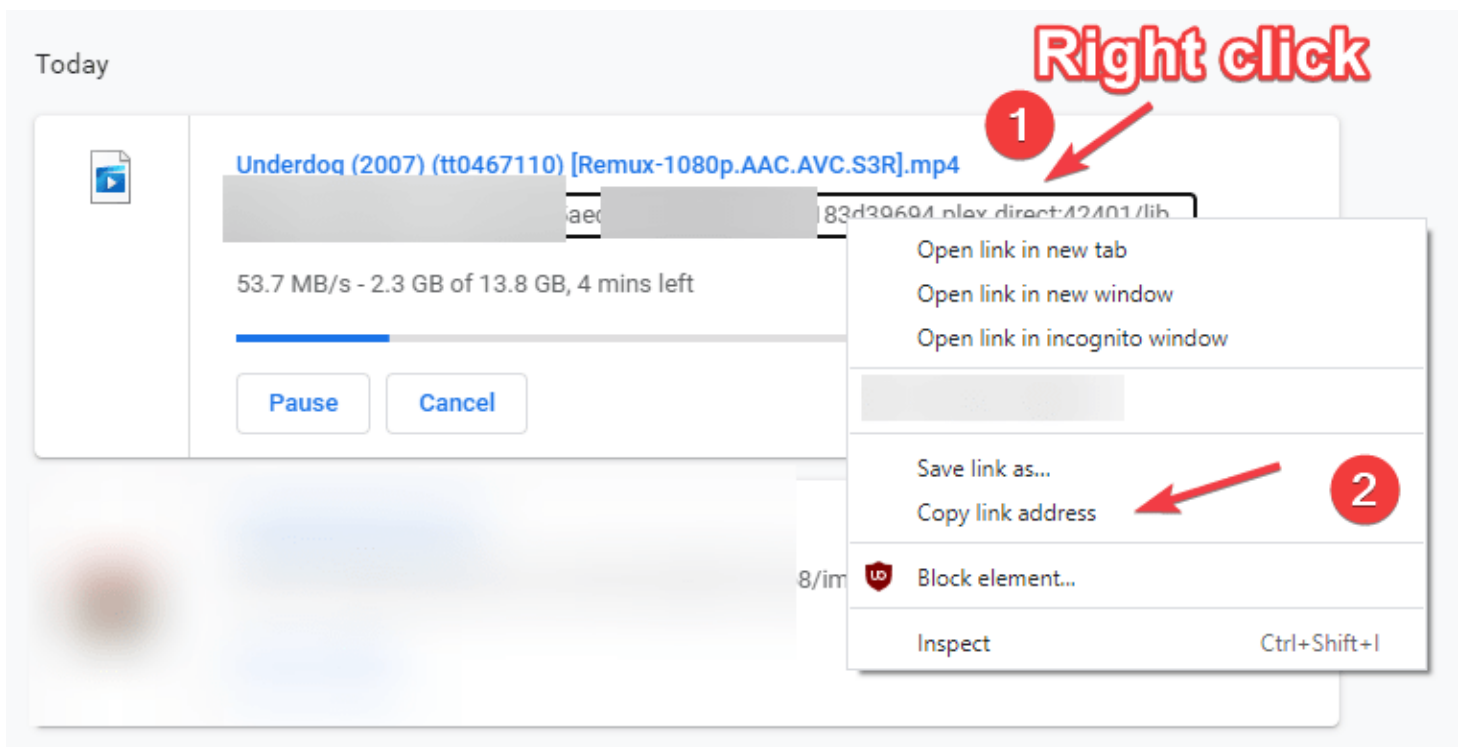We offer CDNs in the following locations

- * Canada
- * Ashburn, US east

In order to figure out which CDN would be best for you, you can run a few speed tests to find the one that gives you the best speed.

- No CDN -> http://fsn.icmp.hetzner.com/10GB.bin
- ash-USeast -> https://ash-speed.hetzner.com/10GB.bin
- OVH Canada -> https://proof.ovh.net/files/10Gb.dat

Want help from Tixie team after doing the test? Submit a ticket, but supply the required info below!

1. Provide the test results of step 2, 3, 4 and 5 in the above test

2. Provide a link to the movie download from your plex server. In step 2 above, right click the "download" button and then "copy as url", paste this url in your ticket on your server dashboard

PS!

If you are using chrome, the shortcut to seeing your downloads and their speeds is CTRL + J

What are peering issues - And why do they happen?

In short, peering issues simply mean that somewhere along the route between point A and point B, theres some congestion or fault drastically reducing the speed at which traffic can pass between both points.

Imagine that all internet providers in the world, are trucking companies - They use highways to deliver their goods from the origin location to its destination.

Some highways have 2 lanes, some have 4, some have 6 - Some are very congested on mondays, some are not.

Imagine that you live in Miami, and your ISP(Trucking company) sends their goods via the i-95 to Boston everyday with no problem, and have done so for over a year now.

However, for some reason in 2019 during February, some meteor crashed into the i95 causing damage to 2 of the 4 available lanes, which in turn resulted in congestion on the i95 because the throughput is now much less then what it normally is.

What we now experience is that trucks are not reaching Boston in time, they are very delayed and so the speed at which trucks were traveling from Miami to Boston was significantly reduced.

Some trucking companies might re-route the trucks away from the i95, and onto regular roads, but regular roads dont have the capacity or speed limits that the highway does, so this also results in delays going from miami to boston, resulting in slower speeds in terms of trucks getting from A to B.

In order for the trucking company to get to Boston in time, the trick is to find an alternative route that is both reasonably fast, and free on congestion.

In this example, the highways are the links on which your internet traffic moves, the trucks are your packets, and the alternative routes are CDNs or VPNs.

As you can probably imagine, peering issues based on the illustration below can be sporadic - They can happen at anytime, and they can last for no more then a few hours, up to days or in really bad cases, months.

What can You/Tixe do about peering issues?

Follow our guide for enabling Tixe CDN click HERE