Bandwidth Throttling

The bandwidth policy applies to all wired (/resources/technology/internet/wired-connection) and wireless connections (/resources/technology/internet/wireless-connection) within University Housing residence halls and facilities.

University Housing provides high-speed Internet access (/resources/technology/internet) as a service to all our residents. Unfortunately, all of the bandwidth used by that service costs a lot of money, and our hardware can only support so much traffic from everyone at any given time. If a student were to use all of the bandwidth available to them 24 hours a day, our network would become unusable. Furthermore, bandwidth used by University Housing is only a piece of the bandwidth used by the entire University. This includes all residence halls, University academic departments, University operations, and more.

In order to keep University Housing bandwidth from overwhelming the network, University Housing has instituted a set of rate limits that gradually limit the connections of the highest-traffic users, and keep the network working well for everyone. This allows us to efficiently use our limited bandwidth resources and continue providing high-speed access to everyone.

RATE LIMITING

Rate limiting, also known as bandwidth throttling, is the system that is used on ResNet to regulate high-traffic users. The basic idea behind rate limiting is that the more traffic you generate, the slower your connection will become. We continuously calculate your traffic over the most recent 24 hours to determine your rate limit class. There are 3 limit classes:

Traffic over the most recent 24 hours	Rate limit
< 4 GB	none
> 4 GB	25 Mbps
> 5 GB	10 Mbps
> 5.5 GB	5 Mbps
> 6 GB	1 Mbps

If you start a download and then cancel it, your "traffic account" will be charged with the full file size. The input (upload) and output (download) connections are calculated as separate connections. Traffic within the illinois.edu domain does not count toward your "traffic account", nor does traffic within the illinois.edu domain get rate limited.

Rate limit classes are unique to your computer; your roommate's computer's rate limit class has no bearing on your computer's rate limit class. Your room's connection may be disabled (/resources/technology/help/policies/disabled-connections) if a computer connected in your room attempts to circumvent the bandwidth policy through means such as spoofing MAC addresses or continual heavy traffic (e.g. being in Restricted Class B for multiple continuous days). However, these cases are very rare, and if your room connection is disabled, it is likely for another reason.

AVOIDING RATE LIMITING

Most users get rate-limited by using applications that accrue lots of traffic in a short time. Streaming high-definition video or downloading software such as full suites of programs or video games that are large in size can often put you in a restricted limit class. Large documents such as e-books that contain many images also can be a large source of traffic.

Running background applications can also accrue a significant amount of traffic, particularly applications which update information automatically by downloading from an external server. Cloud backup services that constantly upload new versions of files also may accrue much traffic. Peer-to-peer file sharing also accrues traffic very quickly, and is not recommended by University Housing.

We do not make exceptions in issuing limit classes, but we provide other options to handle your traffic-intensive needs. Using University Housing computer lab machine does not count toward your "traffic account".

MONITORING YOUR TRAFFIC

While your computer is connected via wire (/resources/technology/internet/wired-connection), you can go to the Traffic Statistics (https://ctweb1.cites.illinois.edu/tools/my-internet2.php%20) page to see your bandwidth over the past 24 hours. (This page currently only is accurate when connecting via wired connection.) Though the Traffic Statistics page only updates once an hour, your limit class is updated continuously. The column "Input" reflects upload traffic, while the "Output" column reflects download traffic. Limit classes are described above. The numbers in the columns are in units of bytes. 1,000,000,000 bytes equal 1 GB.

Within your operating system, there is typically an application that tracks the amount of traffic that each running application on your computer is accruing in real time. This can be useful in determining what background processes create the most traffic. If you need assistance in identifying bandwidth-heavy applications, submit a help request (https://web.housing.illinois.edu/TTS).

Windows

1. Press **Ctrl + Shift + Esc** to open Task Manager
2. Select the **Performance** tab at the top of the Task Manager window
3. Select **Open Resource Monitor** at the bottom of the Task Manager window
4. Select **Network** to expand a list of processes that are currently using bandwidth
5. You can sort by **Send (B/sec)** and **Receive (B/sec)** to find the most bandwidth-heavy applications for uploading and downloading, respectively

OS X

1. Press **Cmd + Space** to open Spotlight
2. Type **Activity Monitor** and press Return to launch Activity Monitor
3. Select the **Network tab** at the top of the Activity Monitor window
4. You can sort by **Sent Bytes** and **Rcvd Bytes** to find the most bandwidth-heavy applications for uploading and download, respectively

Technology (/resources/technology)

Help (/resources/technology/help)

Internet (/resources/technology/internet)

Labs (/resources/technology/labs)

TV (/resources/technology/tv)

Staff (/resources/technology/staff)

ABOUT US

Mission & Vision (http://housing.illinois.edu/aboutus/mission-vision)

Staff & Employment (http://housing.illinois.edu/aboutus/staff-employment)

SDRP (http://housing.illinois.edu/aboutus/sdrp)

Construction (http://housing.illinois.edu/aboutus/construction)

Sustainability (http://housing.illinois.edu/aboutus/sustainability)

Alumni (http://housing.illinois.edu/aboutus/alumni)

Press (http://housing.illinois.edu/aboutus/press)

Hall Tours (http://housing.illinois.edu/aboutus/hall-tours)

TOOLS

MyHousing (http://housing.illinois.edu/tools/myhousing)

Maintenance Request (/Housing/maintenance)

Extra Credits (https://web.housing.illinois.edu/MyBalances/)

Laundry (http://housing.illinois.edu/tools/laundry)

Space Reservations (https://space.housing.illinois.edu/virtualems/)

Forms & Documents (http://housing.illinois.edu/tools/forms-documents)

Move-In (http://housing.illinois.edu/tools/move-in)

RESOURCES

Rates (http://housing.illinois.edu/resources/rates)

Get Involved (http://housing.illinois.edu/resources/get-involved)

Technology (http://housing.illinois.edu/resources/technology)

Residence Hall Libraries (http://housing.illinois.edu/resources/residence-hall-libraries)

Policies (http://housing.illinois.edu/resources/policies)

Addresses & Mail (http://housing.illinois.edu/resources/address-mail)

Parking (http://housing.illinois.edu/resources/parking)

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Contact Us (http://www.housing.illinois.edu/housing/Contact-Us.aspx)