

## High Usage Applications (Resulting in High Data Usage and Overage Charges)

### To provide a data usage scenario:

The biggest chunk of data consumption does not come from the PC, it is downloaded by our game consoles PS3/Xbox 360/Wii. If you stream about 20 Netflix movies per month, which, in a worst case scenario, run at about 2 GB per hour or about 60-80 GB per month. A considerable amount of time is spent on streaming videos, music and various clips on YouTube, Hulu, Flickr and Flash gaming sites which can come at about 500 MB of data per day or 15 GB per month.

If your music consumption has moved to the Cloud (Apple Inc.) and if you use several devices through your household that stream radio and music, this is typically at a rate of about 56 MB per hour or 224 MB per day or about 6 GB per month. If you use videoconferencing services to keep in touch with other family members this service runs at 667 Kb/s or about 290 MB per hour or 4 GB per month, Skype uses substantially more data.

Of course, there is the miscellaneous data consumption that would include email, security updates, Facebook, Twitter, and those massive game console updates, music purchases, and increasingly popular cloud applications services within your family. Additionally there is substantial office data use of just about 10 GB of data every month. When dealing with the concerns of controlling your data usage many factors come into play.

Every website uses data, be it miniscule to moderate to excessive data usage. Here are the Top Five major data drainers.

### 1. Netflix Viewing and Data Usage

Netflix allows different data quality settings and these setting will impact your data usage.

#### Overview

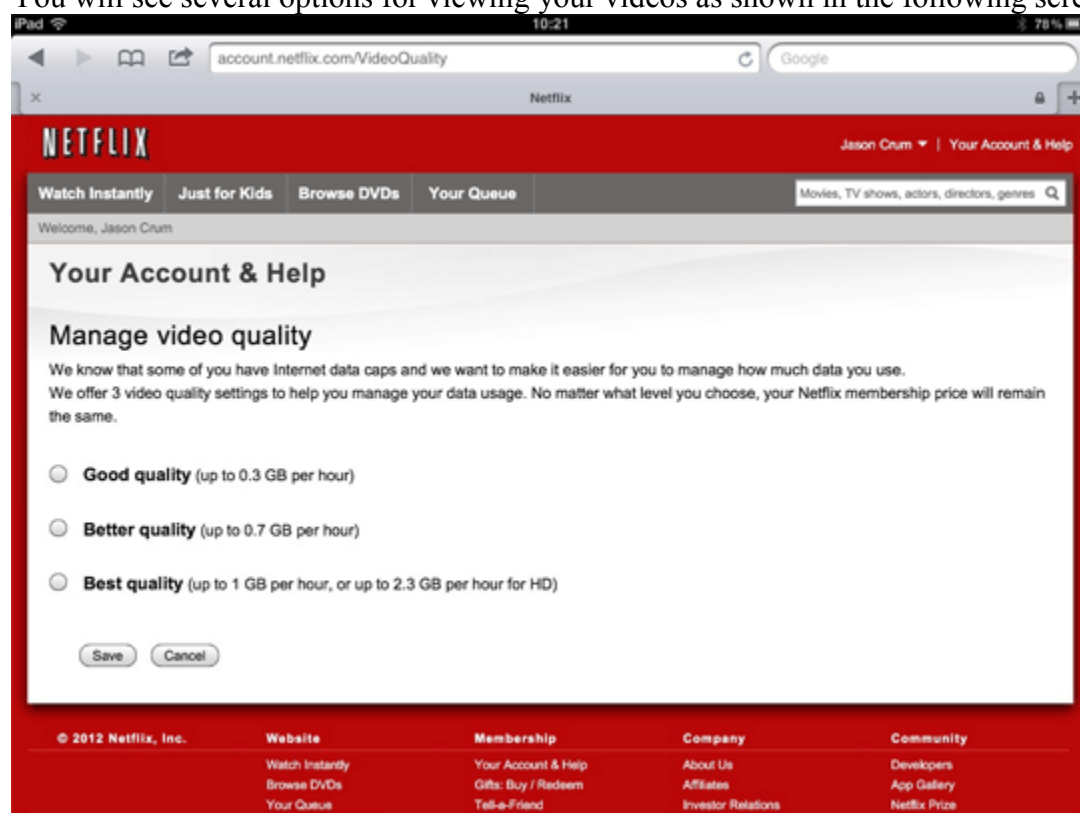
Netflix is a popular application for viewing movies and television shows online. This program while convenient, does contribute to your data usage. Netflix offers a method to manage how much data you may use while viewing programs.

#### Actions

To access the video quality options perform the following steps.

1. Log into your Netflix account.
2. Click on **Your Account** and then click **Help**.
3. Select the **Manage Video Quality** option.

You will see several options for viewing your videos as shown in the following screen displayed below.



These options enable you to select your desired video quality, which also controls the amount of usage your against your account. Below is an estimate of the data usage per hour of online Netflix viewing. These estimates are provided by Netflix.

Netflix Quality Level	Usage per Hour in GB	Usage per Hour in MB
Good Quality	0.3 GB	310 MB
Better Quality	0.7 GB	720 MB
Best Quality – Standard Definition	1.0 GB	1,024 MB
Best Quality – High Definition	2.3 GB	2,400 MB

## 2. YouTube

After you sign up for your YouTube account you can begin to manage your YouTube account settings. These YouTube account settings include customizing your viewing experience and this allows you to control your data in your YouTube account.

- **Overview of Your YouTube Account**

The overview of your YouTube account provides all kinds of information about your activity on YouTube. This YouTube account overview includes links to manage your videos, edit your video channel, and connect with your YouTube network and more. The YouTube account overview is sort of like a control board that you can use to manage your YouTube usage.

- **Change Your YouTube Account Playback Setup**

This option is most useful to YouTube account holders with slower internet connections or data limits. You can change the settings to control whether or not you can watch high-quality videos with your YouTube account.

- **YouTube Account Email Options**

The YouTube account email options form is where you can change your email address on file with YouTube. You can also control how often and under what circumstances YouTube can communicate with you. This allows you to keep track of how many videos you are watching in relation to data usage.

- **Share Activity From Your YouTube Account**

You can connect your YouTube account with other social media sites like Facebook and Twitter, so your friends and followers are automatically updated when you upload or favorite a video. This again can contribute to a large data usage on your account.

- **YouTube Account Mobile Setup**

Set up your YouTube account so that it works with your phone. YouTube account mobile setup gives you a personalized address that lets you upload videos directly from your phone to your YouTube account. If your phone is connected to your internet and it is constantly doing updates or streaming information between computer and phone you use a monstrous amount of data.

## 3. Bit Torrents (Legal and Illegal downloading)

Bit torrents (also known as "torrents") work by downloading small bits of files from many different web sources at the same time. This means that when you upload or download any bit torrent you are using extreme amounts of data this goes for legal and illegal bit torrents.

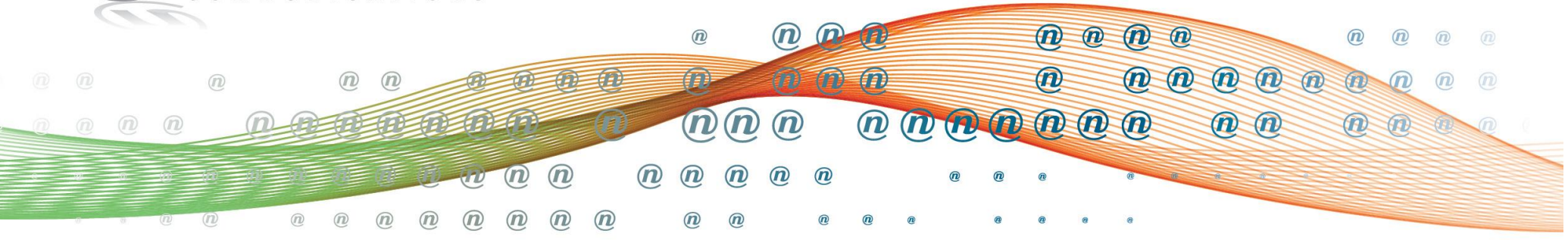
Torrent networking debuted in 2001. A Python-language programmer, Bram Cohen, created the technology with the intent to share it with everyone. And indeed, its popularity has taken off since 2005.

The torrent community has now grown to millions of users worldwide in 2009. Because torrents strive to screen out dummy and corrupt files, are mostly free of adware/spyware, and achieve amazing download speeds, torrent popularity is still growing fast. By **straight gigabytes of bandwidth used**, bit torrent networking is the most popular activity on the Internet today. Depending on what you are downloading once the file is complete if you do not stop the file it will do what we call "seed" and this again uses immense amounts of data unbeknownst to the user.

## 4. Streaming Radio/Podcasts/Music

Streaming is a service provided to listeners that enables them to listen to a radio station on their computer without the need for a radio. Streaming involves providing listeners with a continuous stream of audio that you cannot pause or rewind. This is the same as the live radio that you listen to at home or in your car. Streaming (or Internet) radio differs from traditional radio in the fact that you are not bound by range or signal strength. As long as you have an active Internet connection you can listen from anywhere in the world. When





you use any sort of streaming service you use data. To give an example for one hour of streaming you can use anywhere between 140MB to 720MB at the high end. So if you are using online streaming for an average work day (8 hours) you can use 1.2GB to 5GB a day.

### 5. Online Gaming PC/Consoles

With all of the gaming consoles available on the market online gaming is inevitable. What a user has to keep in mind is that when you use your console to play a game online, you are using data. When you are playing video games on your PC it is best to monitor your data usage with limited data plans. Below is a chart to illustrate online gaming data usage.

Types Of Consoles	Hours Spent Online	Data Usage Amount
Play Station 3	10 Hours	<b>160 MB</b>
Nintendo Wii	50 Hours	<b>800 MB</b>
XBOX 360	75 Hours	<b>1.17 GB</b>
Personal Computers/Laptops	200 Hours	<b>3.13 GB</b>

This amount of data usage can go up if there are multiple consoles being used daily.

### 6. Miscellaneous

Those are the top five data drainers on the market but it can differ for each person. Miscellaneous data is a major contributor as well. This can consist of Virus Protection Updates which draw on internet connections and in turn data to be able to keep your computer running safely and efficiently. Virus protection programs can run constantly in the background of your computer unbeknownst to the user. This minute data usage can unfortunately add up if left running 24/7.

Social Media applications are very popular attractions when browsing the internet. Facebook is a major contributing factor to data usage in the household. Every time you click on a little video clip, see an Advertisement or play a quick Facebook game you use data. Facebook games tie into online gaming and on average can use 160-300 MB daily.

Email and Email Attachments are commonly used every day. An email that only consists of text can use 0.35 MB, if the email contains a picture it can use 4 MB, and if the email contains a document attachment it can use 3 MB this is based off of a single attachment. If the email contains multiple pictures or document attachments the data usage can add up immensely.

Data Sharing Software such as the Apple Cloud can contribute to additional data usage. Whenever you back up your music or files onto Cloud it streams data. You can connect multiple devices to the Cloud and this turns minute amounts of data usage a day to Gigabytes a month depending on what you are sharing or backing up and from how many devices.

Skype allows you to stay connected with family members and friends abroad, but these applications can use a considerable amount of data in a month if being used consistently. To talk for an hour on Skype you use roughly 1 GB of data. If you use Skype daily this adds up fast.

