

# Data and Wireless Usage Guide



Internet service is now as necessary to our household as our electricity and water supply. With the large array of online applications we use daily, it can be confusing when trying to select the correct plan. While Redfox offer several unlimited data plans, it is important to understand how you use your data to ensure you are receiving the best pricing.

We understand that every family member will use your internet service in a different way. Below is a guide of approximate data used for some of the more popular online applications.

<b>Activity</b>	<b>Approx. Data Used</b>
<b>Sending or receiving 40 emails without attachments</b>	2 MB
<b>Visiting 5 different web pages</b>	2 MB
<b>Browsing Facebook for 10 minutes</b>	3 MB
<b>Streaming 1 hour of music</b>	150 MB
<b>Streaming 10 minutes of video on YouTube (standard definition)</b>	70 MB
<b>Making a 10 minute call on Skype (standard not video)</b>	10 MB
<b>Uploading 10 photos</b>	40 MB
<b>1 hour Netflix Streaming (HD)</b>	3 GB
<b>1 hour Netflix Streaming (4K)</b>	7 GB
<b>1 hour online gaming</b>	50 MB

## ***Managing your data usage***

There are many ways that you can monitor your data for usage patterns and to ensure you don't go over your limit. Redfox customers can monitor their usage by doing the following:

- Click on the 'Customer Login' button located at the top right of our web page.
- Enter your username and password and click the Login button
- Under the Manage Billing section click on View Usage and you will be able to see your totals for your month to date.
- Please note that usage data may be up to 24 hours old.

Redfox will also send you emails throughout the month which alert you when you are getting close to your data limit.

Some other tips for limiting your data usage, particularly on mobile devices:

- Turn off apps or features of your phone which automatically use data. Some phone features, like push notifications, use up data in the background and can be easily turned off.
- Manually shut applications on your phone or table to make sure they don't keep using data in the background. Some apps keep running in the background even after you have exited them.
- Applications such as Office 365, OneDrive and Windows Updates may be set to automatically download and this can impact your monthly usage as some updates are quite large.
- Be aware that some streaming services such as Netflix have different quality settings which are usually set to auto. This means that the resolution downloaded varies between Low, Medium and High and can change your download rate from 300MB(Low) to 7GB(High 4K) per hour depending on your preference.

### ***What happens if you go over your data limit?***

When you have reached your data limit for the month, shaping will take effect. This means that your speeds will be restricted back to 1Mbps/1Mbps until your next billing period. You can reset your data limit by contacting our office, however a fee is payable. Your speeds will return to normal at the start of your next billing cycle.

Should you find you are being shaped on a regular basis, Redfox allow you to increase your plan at no penalty.

### ***Wireless Interference***

There are many devices which may cause interference to your wireless network and cause dropouts. We have compiled a list of common devices below.

#### **Microwave ovens**

Using your microwave oven near your computer, Bluetooth device, or Wi-Fi base station might cause interference.

#### **Direct Satellite Service (DSS)**

The coax cable and connectors used with some types of satellite dishes can cause interference. Check the cabling for damage that could cause radio frequency interference (RF leakage). Try replacement cables if you suspect interference.

#### **Power sources**

Certain external electrical sources like power lines, electrical railroad tracks, and power stations can cause interference. Avoid locating your Wi-Fi router near power lines in a wall, or near a breaker box.

#### **2.4 GHz or 5 GHz phone**

A cordless telephone that operates in the 2.4 GHz or 5 GHz range can cause interference with wireless devices or networks while taking calls.

#### **Wireless speakers**

Wireless audio that operates in the 2.4 GHz or 5 GHz bandwidth can cause interference with other wireless devices or networks.

#### **Certain external monitors and LCD displays**

Certain displays can emit harmonic interference, especially in the 2.4GHz band between

channels 11 and 14. This interference might be stronger if you're using a notebook computer with the lid closed and have an external monitor connected. Try changing your access point to use 5 GHz or a lower 2.4 GHz channel.

#### **Poorly shielded cabling**

External hard drives or other devices with poorly shielded cabling can interfere with your wireless devices. If disconnecting or turning off the device appears to help, try replacing the cable that connects the device to your computer.

#### **Other wireless devices**

Other wireless devices that operate in the 2.4 GHz or 5 GHz bandwidth (microwave transmitters, wireless cameras, baby monitors, a neighbour's Wi-Fi device) can cause interference with Wi-Fi or Bluetooth connections.

### **Wireless Barriers**

A device's location and building construction materials can affect Wi-Fi and Bluetooth performance. If possible, avoid barriers or change the placement of your Wi-Fi or Bluetooth devices for a clearer signal path.

Examples:

- Your computer is underneath a metal desk and you try to use a wireless (Bluetooth) mouse on top of the desk. The metal in the desk might act as a shield between the mouse and your computer. You might not be able to pair the device to your computer, or the pointer might move erratically.
- Your wireless router is downstairs, and your computer is upstairs. The material between the two floors is concrete with metal reinforcement. The floor might lower or block the Wi-Fi signal from your base station to your computer. You might see slower network speeds, lower signal strength, or might not be able to connect to your Wi-Fi network at all.

Radio Frequency (RF) reflective and absorbing obstructions include the following:

<u>Type of Barrier</u>	<u>Interference Potential</u>
Wood	Low
Synthetic material	Low
Glass	Low
Water	Medium
Bricks	Medium
Marble	Medium
Plaster	High
Concrete	High
Bulletproof glass	High
Metal	Very high

## Reduce effects of interference from other wireless devices

If there are many wireless devices connected to your computer or nearby, you might need to adjust the channels used by your Wi-Fi devices.

To minimize interference between your Wi-Fi and Bluetooth devices, try the following:

1. Change channels on your wireless network.
2. Connect to a 5 GHz wireless network (if possible).
3. Move your computer and Wi-Fi router closer to each other.
4. Minimize the number of active Bluetooth wireless devices you have connected to your computer or nearby.

Having your wireless router in a central location is optimal, if this is not an option the use of a range extender may be needed to boost the WiFi signal throughout your house, please see one of our staff for more information and pricing.

