



FREQUENTLY ASKED QUESTIONS ON INTERNET DATA CONSUMPTION/DEPLETION/USAGE

In view of recent developments pertaining to the unfortunate spread of the Corona Virus (Covid-19), the Federal Government directed a total lockdown of some States from the 30th of March 2020, while some State Governors also directed total lockdowns in their respective States. Due to this, consumers at home are making use of more telecommunications services than ever before to stay in touch with friends, family, colleagues, work and the world at large. As a result, the Commission has observed a surge in complaints from consumers regarding Data Depletion and Poor Quality of Data services.

In line with our (PIE) mandate of Protecting, Informing and Educating consumers, the Commission immediately investigated the complaints and ensured resolution as necessary. However, we also believe that it is necessary to empower consumers with information on data consumption and usage to enable them get better value from their data subscriptions and to get prompt redress where necessary. To achieve these objectives, we have developed the following **Frequently Asked Questions (FAQs)** with regards to data and data consumption and usage:

1. What is Internet Service / Data Service?

Internet data is a service provided by telecom service operators to the end users to enable them access the internet. Internet data usage is therefore the amount of internet data used in a billing cycle. The speed of the access and the nature of activities which the consumer can carry out often depends on the nature of the technology in use. For example, 2G (2nd Generation Technology) is circuit switched, 3G (3rd Generation) is packet and circuit switched) and 4G (4th Generation) is packet switched technology. 2G is in GPRS, EDGE mode or their equivalents (using circuit switched), 3G is in High Speed data service termed HSPA, HSPA⁺ mode or their equivalents (using packet and circuit switched) and 4G is in LTE, LTE-A mode or their equivalent (using packet switched) technology. Each of these technologies provide different speeds and protocols for using internet. Newer generations of phones are usually designed to be backward-compatible,

so a 4G phone can communicate through a 3G or even 2G network. In addition to these Wireless Generation technologies, we also have Fibre Optics Internet.

2. What does G stand for?

"G" stands for "GENERATION". While you are connected to internet, the speed of your internet depends upon the signal strength that has been shown in alphabets like 2G, 3G, and 4G etc. which is right next to the signal bar on your mobile phone's home screen.

3. Does the usage of 2G, 3G or 4G has impact on the data Usage? Can this also lead to depletion of data?

Absolutely yes, the higher the generation, the higher the speed of the data usage, and consequently the faster the depletion of your mobile data.

4. What is Mobile Data?

Mobile data provides internet connection on a smartphone or tablet without the need for Wi-Fi. Mobile data is what allows your phone get online when you are away from WIFI. Mobile enabled devices can send and receive information over a wireless cellular connection, as long as you have cellular connection, you can use the internet.

Mobile data is simply defined as enabling access to the Internet via a mobile device that is connected to a mobile network operator. For a person to access internet content, he/she will have to purchase mobile data plans, which entitles them to a certain amount of data over a fixed period. You can also access the internet through Wi-Fi connections depending on whether you have access to that particular Wi-Fi network. With mobile data, however, you can use the internet as long as your phone can detect your network's data signals, and you have an active data plan on that network.

5. What causes Data consumption/Usage/Depletion?

Your data is used whenever your phone connects to the internet. The following activities are the most common activities that reduce your data:

- Sending and receiving emails,
- Downloading and uploading files (pictures, documents, videos, etc. – the larger the file, the more the data consumption,
- Browsing the internet – the more pictures, videos or graphics on the websites, the more the data usage,
- Instant Messaging – like WhatsApp, Facebook Messenger, Snapchat, etc. this uses a lot more data than people imagine due to the advancement in technology. Take for instance, WhatsApp messaging, video calls and status features. These consume a lot of data due to pictures and videos being shared.
- Streaming music/ videos on YouTube, Hulu, Deezer, Apple Music, Netflix and other channels; these are major causes of consumer data depletion due to the current COVID - 19 pandemic; which has more people having to use online streaming services for longer periods and in higher frequencies.

It is however important to note that these streaming services and platforms offer different quality of content presentation and that the higher the quality of the content consumed, the higher the data consumption. Take for instance, a video on YouTube labelled with a High Definition quality (e.g. HD) versus that with a Standard Definition (SD) or lower quality (e.g. 360p or 480p) would provide the same content for the same period but, will use up more data for a device streaming the high quality content option.

- Games – games use a lot more data than most people imagine due to intense graphics and algorithms that power them.
- Social media applications such as Facebook, WhatsApp, Twitter, Instagram, etc.
- Short video applications such as Tik Tok, vskit, etc.
- HD Video-chatting and conferencing applications like Zoom, Skype, WhatsApp Video, etc.
- Backing up content with cloud storage and/or file-sharing tools
- Using your device as a Mobile Hotspot and allowing other devices to access the internet from it
- Indirect or background data usage - Indirect data usage occurs in the background, during tasks performed automatically by your device. Some examples of indirect data usage are:
 - Automatic backups of pictures or videos
 - Software updates

- App content refreshes
 - Syncing and location services
- Device Operating System (OS) and background app updates – These are a major causes of data depletion especially if a person is using a high-end data voracious device. These updates usually happen in the background or at night when a person is sleeping and can consume data in hundreds of megabytes (MB) up to Gigabytes (GB). It is strongly advised that people ensure that their device software and app updates are set to be manually activated as against automatic downloads.
 - Auto updates on your iPhone / Android phones / Windows for laptop especially iPhone / Windows updates, which are more frequent and data intensive.

6. How much data do I need?

Your data consumption depends on many factors. As mentioned above, the nature of technology (2G, 3G, 4G or 5G and Fibre Optic Communication (FTTx), the quality of the network, the speed of download, the type of websites you visit, the specifications of your handset / device and so many other factors contribute to your data consumption.

For instance, two handsets can use different amounts of data to download or stream the same video on YouTube!

The following **approximations** give an estimation of data usage. **Please note that these are mere estimations provided by an operator based on typical/average file sizes.**

1 Hour of Social Media = 200mb

1 Hour of Browsing = 60mb

1 Hour of Instant Messaging with video calls = 140mb

1 Hour of streaming music = 60mb

1 Hour of Streaming Videos = 350mb (Non HD) and 1GB (HD)

1 Email sent or received with attachments = 500kb

1 minute of connected game play = 60mb

Internet Data Usage Guide		
Activity	Required Speed	Data Usage per Hour
Basic Web Use	1Mbps	10-25MB
Social Media	1Mbps	156MB
Streaming Music	5Mbps	150MB
Streaming 480p Video	4Mbps	700MB
Streaming HD Video	8Mbps	3GB
Streaming 4k Video	25Mbps	7GB
Online Gaming	3Mbps	15MB
Online Gaming (MOBA)	6Mbps	60MB

*MOBA – Multi-Player Online Battle Arena

YouTube Usage	360p	480p	720p	1080p	2160p
Per minute	5.25MB	11.7MB	16.7MB	50MB	114MB
Per hour	315MB	700MB	1GB	3GB	7GB

7. What activities use up data most?

The most common example of mobile activities (inclusive of uploads and downloads) as you will notice from the answer to question 6 above that use large (plenty) of data are as follows;

- Downloading and watching videos online especially on sites Like Netflix and YouTube.
- Sending and receiving emails with large attachments
- Automatic Software updates and virus definition updates
- Online Meeting applications like Zoom, Microsoft Teams, etc.
- Online learning platforms like Google Classroom.
- Accessing websites with lots of videos and pictures like CNN and BBC
- Accessing Social Media sites such as Facebook, Snapchat, Instagram, Twitter, Tik Tok etc.
- Playing Games on a website or via a download app
- Remote security cameras
- Data sent between sites on Virtual Private Network (VPN).
- Mobile App online Notifications from social media, social marketing sites etc.
- Indirect or Background data usage
- Auto updates on Apple devices and Windows based Laptops.

8. How can I use my mobile Data wisely or avoid Data wastage?

There are several things you can do to manage your mobile data usage to that it is not wasted or finished (depleted) faster but lasts longer. The following are examples:

- Disable mobile data when it is not needed
- Use data compression in your browser
- By reducing video streaming quality from video sites such as YouTube, Netflix, Hulu, Showtime – you can use , from 1080p or default/ auto setting to 240p for optimal viewing and lower data consumption. This may however affect the quality of your experience.
- By deactivating all automatic uploads to cloud storages except when / where necessary.
- By not breaking or interrupting downloads in-between video sessions.
- Turn off automatic updates for apps for mobile devices, laptops and personal computer.
- Turning off Auto-Play video feature on Social media sites like Instagram, Facebook and Twitter.
- Disabling Automatic Video /Photo download on WhatsApp application

- Disabling syncing and location services
- Use Wi-Fi hotspots wherever you can to save your mobile data – you should however note that there are data security risks to using open/free Wi-Fi connections. Your passwords and personal data are often exposed on such connections.
- Limit sending and receiving files and push notifications
- Delete email messages that won't deliver and is no longer required.
- Send big files when connected via WIFI or Use Wi-Fi for big files
- Monitor Time spent on Social Media
- Closing apps when you're done using them can also reduce data usage
- Disabling application content refreshes
- Set up usage alerts
- Do not use mobile phones as hotspots

9. How can I use my phone to manage my data usage to avoid Data wastage?

Your smartphone's default settings are typically configured to get the best possible experience, which comes at the cost of your data usage. You can change those settings to manage your data usage in the following ways:

- By Manually Capping Mobile Data: To do this,
Go to Settings > Network & Internet > Data Usage > Billing Cycle
- By Manually setting Data Saver
Activate data saver: Locate "Data Usage" on your device and activate "Data Saver". This will help cut down your data usage by preventing apps from using data in the background.
- Disable auto-update on your App store
- Disable multimedia auto-download on your social media apps
- Turn off your data when it's not in use.
- Stop Apps from automatically Syncing: to do this,
Go to Setting > Apps & notifications > Select App > Select Disable Background Data
- Don't Stream it, Download It
It is advisable to download video or audio content to save data than to stream it.
- Set data alert notifications on your mobile phone.

- Avoid multiple configuration of the same email address on your mobile phone. For instance, do not configure your Gmail address on your email app as well as Gmail app at the same time on the same mobile phone.

10. How to monitor and limit data usage on an Android phone

a. USE DATA SAVER MODE

If you have Android 8.0 or later, your phone should come equipped with Data Saver mode, which kicks in when you're not on Wi-Fi and ensures that apps and services that are not being actively used won't be able to stream data in the background.

It's very easy to turn Data Saver mode on and off. To do this;

Go to Settings

Go to "Network & internet" > "Data usage"

Select "Data Saver." Toggle "Use Data Saver" on.

There may be specific apps that you want to allow to use background data, even when Data Saver mode is on. For example, you may want to get Twitter notifications no matter where you are. To do this,

Go to the "Data Saver" page (see above)

Tap on "Unrestricted data"

Scroll down to any apps that you want to enable for background data use even when Data Saver mode is on. Toggle them on.

b. SET A DATA LIMIT

You can set your phone to issue a warning if you're nearing your data limit before the end of your monthly billing cycle. You can even set a limit beyond which your phone won't use any data. To do this,

Go to Settings

Go to "Network & internet" > "Data usage" > "Data warning & limit"

Tap on "App data usage cycle." This will let you set the day that your account starts its monthly cycle.

Back up and toggle “Set data warning” on. You can then enter the data limit — say, 4GB — that you want for your phone.

11. How do I Limit Data Usage on Apps

a. You Tube:

- Open the YouTube App.
- Tap on the profile icon at the top right corner
- Select Settings.
- Click on General.
- Turn on “Limit Mobile Data Usage”.
- **Play Store (Android):**
- Go to the Google Play store.
- Click on Menu & go to Settings.
- Click on Auto-update apps.
- Select “Auto-update apps over Wi-Fi only”.
- You also have the option to choose “Do not auto-update apps”

b. IOS (Apple: I-Phone) :

- Go to settings on the iPhone
- Click on iTunes and App Store
- Got to Mobile Data Option
- Turn off ‘Automatic Updates’
- Or you can turn off the apps that you don’t want automatic updates.
- You can also click on App downloads and select the preferred option in regards to app downloads.

c. Instagram (iPhone) :

- Open Instagram options.
- Go to Settings
- Go to Accounts.
- Select Cellular Data Use.
- Then tick Use Less Data

d. Instagram (Android):

- Open Instagram options.
- Go to Settings.
- Go to Accounts.
- Select Mobile data use.
- Then tick Data Saver.

e. WhatsApp – Deactivate Auto-download

- Go to the “settings” section in your WhatsApp APP.
- Click on “Data and Storage Usage”.
- Select Media Auto Download option.
- Deselect all options under “When Using Mobile Data”.
- You can also enable low data usage for WhatsApp Calls

f. Facebook – Switch off Auto Play

- Go to your Facebook option icon (the three horizontal bars at the top right corner).
- Click on App Settings (Under help & settings).
- Click on AutoPlay.
- Select never auto play videos.
- You can also activate the “Data Saver” option.
- Navigate to the option icon.
- Then go to settings & Privacy.
- Select Data Saver.
- Toggle the data saver on.

g. Netflix:

- Go to Netflix.com.
- Click Sign In to Get to Your Account.
- Choose a Profile. If you have multiple profiles, you'll want to choose the option for which you want to change the data-usage settings. ...

- Scroll Down and Choose Playback Settings. ...
- Choose Playback Low Quality. ...
- Click Save.

12. Why does my data drop significantly while watching Videos?

Streaming Video is data intensive. It is advisable to always reduce the video resolution to medium or low – depending on your preference, so as to significantly lower the amount of data used up.

Video naturally uses more data. However, if you are downloading, select the medium resolution to manage as their sizes are significantly lower than high definition videos. Also, live streaming video uses more data. Therefore it is preferable to download the video on your local device and watch afterward.

13. Why does my data disappear even when I am not online?

Data consumption can occur on your account with or without your knowledge.

- **With your Knowledge:** Data is consumed when you open web pages, when you browse, while downloading/uploading files, streaming videos or doing any of the other activities mentioned above.
- **Without your Knowledge:** Most smartphones are configured to automatically search for, and download software updates, app syncing, uploads, updates, etc. Your data is therefore consumed by your phone without your knowledge when there are software upgrades and updates to apps on your device. To stop this from happening, you have to disable automatic updates as demonstrated in Question 11 above.

14. Since I migrated to 4G network, my data doesn't last any longer?

4G networks are generally faster than 3G. This increased speed brings about usage of more applications making the data to deplete faster. 4G network is 10 times faster than 3G. 4G is configured for fast transfers of heavy amount of data – OS updates, syncing of photos and videos, streaming on high definition all take place much faster than on earlier generation networks. Also, most of the popular media platforms are designed to provide you with the best user experience, so they would automatically present you with the highest quality videos (HD) once they recognise that you are on a fast connection.

15. Is it possible that someone is stealing my data?

This could be because your hotspot or Wi-Fi password might have been compromised. You should therefore ensure that your password is secure at all times and can also change your password occasionally. You should also be careful of who has access to your phone since data can be shared or transferred without your knowledge.

16. Can I Check my Data if I Suspect that something is wrong?

Yes. Most smartphones allow you to check your usage – you can even set a cap as explained in Question 9 above. Also, some free applications monitor your usage – these are however approximations and may record significantly different amounts from your actual usage.

17. Why do data plans with unlimited ‘access plan’ get exhausted before the end of the month/ plan period?

Many times the unlimited data plan usually has restrictions embedded in the terms and conditions or Fair Usage Policy (FUP) of service. It is advisable to check terms and conditions or Fair Usage Policy (FUP) relevant to your specific data plan. Thus, if you encounter such problem you need to check the terms and conditions or Fair Usage Policy (FUP) of service. However, if what you experience is contrary to the terms and conditions of service or Fair Usage Policy (FUP) applicable to your data plan, you should contact your service provider for prompt resolution within 24-48hrs. If you are not satisfied with the resolution, then contact NCC for necessary assistance.

18. Why should network service provider bring pop up message to ask if the recharge is to be used for data or voice?

The pop - up message is a method of easing the process of converting their airtime to data or leave it to voice services. This should be ignored or cancelled by consumers who are not interested.

19. Why is it that additional data given to subscribers after making subscription to data promo get easily exhausted?

The terms and conditions of the promo data must be noted and understood by the consumers before subscribing for any such promo.

20. What brings about fluctuation in internet access after making data subscription?

This may be due to network problem and /or settings of your phone. For example, if there is no network in location or the strength of network is weak or unstable, then there will be fluctuation. Also, if your data SIM is off you may not be able to use the internet unless you are connected to Wi-Fi.

21. Does speed or time contribute to depletion of data?

YES. It does. The faster the speeds, the more data bundles will be utilised. Logically, the faster the speed, the quicker you can complete a task such as downloading or uploading a file. That means that you're able to do more, and consume more data, in the same amount of time if you have fast speeds. You naturally do more and probably use higher quality streaming.

22. Why is it that monthly subscription does not last a whole month?

The monthly subscription usually comes with a data size or value and once the value is exhausted before the month, the consumer would be unable to access the internet. So, what it means is that a 30 day validity data plan can be exhausted before the 30 day validity or one month, depending on how you the consumer uses the data value.

23. What is the reason behind getting a deducted data value when you subscribe for data?

The Consumer must have borrowed airtime or data from that network service provider. It is important to read and understand the terms and conditions of the services rendered to the consumers by their network service providers.

24. Why do Network Service Providers usually deduct from the normal data subscription while leaving the bonus data untouched?

This should not be the case. The network service provider will deduct from your bonus data and when the bonus is totally depleted, your main data will be charged. Any consumer who is facing such issue should contact his or her Network Service Provider.

25. Why does the shared data among consumers get exhausted quickly unlike the direct subscription?

The shared data and individual data is charged at the same rate. You must note that you cannot control usage of data you shared with others.

26. Apart from the fact that network quality unlocks the full functionality of applications on a device, download rate is also very fast, what can be done to avert this?

This can be averted by reducing or activating data saver to reduce the speed of the data or step down the technology from higher generation with high speed or throughput to lower generation with low speed or throughput.

27. What brings about decrease in the balance of data when all that is done is mere internet surfing without downloading heavy files?

Most websites are very interactive and logging on these sites often results in data being unknowingly consumed by adverts running on the page while one is browsing a specific article. This is another reason that accounts for faster data depletion

28. Why should data deplete when the network does not permit usage and it expires at the end of the month?

This should not happen. So if you experience this type of problem you must contact your Service Provider for prompt solution.

29. What is Fibre Optics?

Fibre-optic communication is a method of transmitting information from one place to another by sending pulses of light through an **optical fibre**. This method of communication delivers higher Internet speed to end users and also offer superior bandwidth capacity allowing you to connect multiple devices all at once. Fibre optics is used for long-distance and high-performance data networking.

30. What is Fair Usage Policy?

Fair Usage Policy is a policy utilized internationally by Internet service providers (ISP) which imposes bandwidth restrictions on users who exhibit patterns of system usage that exceed certain thresholds for extended periods of time. It is designed to prevent fraud or abuse on the network and provide the best of internet experience to all customers based on their chosen data plan.

31. How do I Seek Redress if I am not satisfied with my Data Usage?

- Your first point of call is your service provider. The NCC has mandated all service providers to provide multiple channels for their consumers should they have complaints, and that they should ensure prompt resolution of complaints within specific timelines. NCC sanctions operators who fail to meet these timelines.
- The service providers can be reached on their free 24/7 customer service short codes: **9mobile – 200; Airtel – 111; Globacom – 121; MTN – 180; Smile -444(using your Smile Voice number).**
- When you complain to your service provider, demand a "trouble ticket": the ticket provides evidence of the time/date/nature and timeline for the resolution of your complaint.
- If your complaint is not resolved within the stated timeline, or if you are not satisfied with the resolution, then please report to the NCC using any of the following channels:
 - Call NCC toll free – 622
 - Email - consumerportal@ncc.gov.ng
 - Twitter - [@consumersNCC](https://twitter.com/consumersNCC)
 - Instagram - [@ngrcomcommission](https://www.instagram.com/ngrcomcommission)
 - Facebook – www.facebook.com/nigerian.communications.commission
- Be sure to include your trouble ticket - NCC will then take the matter up to ensure speedy resolution.

