

USING MOBILE DATA WISELY

Browsing the Internet ... watching a video ... sending email on the go are just a few of things you can do with a data-ready mobile device and a data service plan. Being connected has many benefits, but it's important to know your needs and manage your usage to avoid unanticipated charges. The good news is, there are lots of tools and resources to help you stay in control while enjoying all the benefits your mobile data device offers.



WirelessED
WIRELESS EDUCATION AND EMPOWERMENT

WHAT IS WIRELESS DATA?

Wireless data service for your mobile phone, smartphone or other device (a tablet computer, for example) allows you to:









- send and receive email
- surf the Internet
- download games, ringtones, songs, and applications
- post to social media sites
- stream videos or music
- get directions
- sync your calendar and contacts

It's important to understand how much data each type of activity uses so you can calculate the data allowance you need to purchase because using more than your plan allows – an overage – can be costly.

Your actual usage will vary depending on what applications you use on your device, what type of content you download, and other factors. Here are some usage estimates for common wireless data activities:

Smartphone Data Legend

The examples below provide a general guideline for the amount of data used per service:

 1 email (text only) 20 KB	 1 web page 180 KB	 1 app/game/song 4 MB
 1 email with photo attachment 350 KB	 1 minute of streaming music 500 KB	 1 social media download/upload w/photo 500 KB
 1 email with Word, Excel or Powerpoint attachment 300 KB	 1 minute of streaming video (YouTube™ standard quality) 2 MB	

Note: Data usage varies per phone/device. The above examples are based on averages using a smartphone and are estimates only. The actual amount of data used for the described activity can vary significantly.

1 MB = 1,024 KB, 1 GB = 1,024 MB

Based on the data calculator from AT&T Mobility.

TIP

Generally speaking, text files use relatively small amounts of data, graphics and music files use larger amounts of data, and video files use very large amounts of data.

MOBILE DATA NETWORKS

All of the major carriers have recently begun upgrading their networks to the next generation of speed and capabilities called "4G" (fourth generation). This upgrade will permit significantly faster data download and upload speeds. For example, a 2 MB application that previously might have taken 20 seconds to download can be downloaded in as little as 8 seconds on a 4G network. Depending on the carrier and your device, you may need to upgrade your smartphone to take full advantage of these improved network capabilities.

TIP

Data usage is measured in kilobytes (KB), megabytes (MB), or gigabytes (GB) rather than minutes. There are 1,024 KB in 1 MB and 1,024 MB in 1 GB.



DATA SERVICE PLANS

A data service plan entitles you to use a certain amount of data (or, in some cases, unlimited data) at a specified price. Data service for phones typically is bundled with – or sold as an add-on – to mobile voice service. Data-only plans are available for data-focused devices, or if you want to use your phone as a mobile data modem for your laptop or PC. Plans are available for individuals or families. Family plans may allow call minutes, text messages, and data to be shared among multiple phones on the account. Depending on the carrier, you may be required to subscribe to a data plan when you choose certain data-ready phones or devices.

There are essentially four ways in which you may be billed for data:

Pay-per-use

You pay for an increment of data used, for example \$1.99 per MB of data. This option, which is often the default for customers who do not select a data plan, can be more expensive when compared to unlimited or larger data plan rates and is usually reasonable only for people who use very little data. (Pay-per-use is not generally a “plan,” but rather the default pricing for customers who do not choose a plan.)

Metered use

This type of plan offers “tiered buckets”—say \$15 for 200 MB of data, \$25 for 2 GB of data, and so on. It’s an option that works well for anyone who uses roughly the same amount of data each month and can stay below their limit. If you use any more than what’s in your bucket, you’ll pay an additional charge for “overage” or going over your allotted bucket.

Unlimited use

If you plan to use a lot of data each month (stream a lot of TV shows and movies, for example), an unlimited plan may be the best option for you. However, not all providers offer unlimited data plans, and those that do may cap usage for people who use extraordinary amounts of data on a regular basis.

Prepaid

These plans require no credit check and no contract. There’s no monthly bill, either, since you pay for service before you receive it. Rates, however, are typically higher than on contract plans. Some prepaid plans offer a monthly rate for a certain amount of data service (sometimes bundled with voice minutes and text messages) to be used during that month and renewed. Other plans allow you to buy a certain amount of service to be used as needed over a specified time—such as one day or one year. Once that period is over or you have used up the data allowance for which you pre-paid, your service ends unless you “refill,” or pre-pay for an additional allowance.

In addition to the cost of your plan, consider the cost of any activation fees, taxes, surcharges and the potential cost of any overages. Early termination fees may be an added cost if you have to cancel your contract before it's up.

If you're switching plans but continuing to use the same type of device, choosing a plan will be easier since you can look at past usage to estimate future usage. If you have never used wireless data before, or you're switching to a more sophisticated device, before selecting a plan you should take advantage of online tools offered by carriers for calculating expected usage so you can purchase a service plan that best matches your needs. These calculators allow you to enter your regular activities (such as email or viewing videos) in order to estimate your potential usage. Your goal when choosing a plan should be to purchase the service you need, without paying for data you won't use or encountering overage charges.

TIP

If your device is Wi-Fi enabled, you can change your settings to take advantage of free Wi-Fi service wherever it's available—at home (if you have a wireless router), at the office, or at public "hotspots." Hotspots exist throughout the world, in locations as varied as airports, cafes, and parks. Scan for open Wi-Fi before using your network service. When you use Wi-Fi, the data you use won't be deducted from your plan.

DATA-READY MOBILE PHONES

Data-ready mobile phones—also known generically as smartphones or PDAs (personal digital assistants), or by the operating system they use, such as iPhone, Palm, Android, and BlackBerry, to name a few—are actually mini-computers with a mobile operating system (OS). While standard cell phones require only a voice plan or a voice-and-text plan, smartphones typically require a data plan as well to take advantage of all the device's computer features.

Also, some data-ready phones are exclusively offered by one service provider, which means that switching service providers may require you to get a new device.

APPLICATIONS

Mobile applications—commonly referred to as “apps”—are specially developed software for use on handheld devices such as smartphones, PDAs, and tablets. There are mobile apps that allow you to do everything from check the weather to post a photo on your personal Web page, as well as many of the other things you can do on a computer.

Some apps may come preinstalled on your device. Others are available for download from your wireless service provider, “app stores,” and other online sources. Many apps are free, but others must be purchased. Free apps may display advertisements. Apps may be available for a one-time charge or there may be a monthly subscription fee. Even though the price per app may seem relatively low—many apps cost between 99¢ and \$5—you should be aware that the nonrefundable charges can add up quickly on your phone bill or credit card. Many carriers do have options available that enable carriers to block or limit application purchases.

Even more important, apps use up kilobytes of your wireless data plan to download them. Some estimates say standard apps use an average of 5 MB of data per download, while some games and other apps use as much as 80 MB. And any application that is Web-based (meaning that you have to be connected to the Internet to use it) will also dip into your data service plan. It's very important to remember to turn these apps off after use to avoid continued data usage, which could lead to unintended overage charges.

While you cannot transfer apps across different operating systems (e.g., Research In Motion to Apple), you can generally transfer apps to a new phone that uses the same operating system.

TIP

Some carriers offer tools to help you anticipate your data usage based on common activities and how you plan to use your device.

USAGE MANAGEMENT TOOLS

Data usage management tools help you to avoid exceeding your data allowance. It's a good idea to regularly monitor your usage because the amount of data used by new devices, apps, and activities will vary.

Tools to help you track your usage include everything from apps that alert you if your data usage reaches a predetermined level—and at least one app that actually turns off your data service just before you go over your limit—to widgets (helper tools) that enable you to monitor your usage as you go. To find these kinds of apps, check first at your carrier's app store. You can also do an online search for key words “mobile data usage monitoring apps.” Some tools may be carrier specific and some may be device specific.

All major carriers—AT&T, Sprint, T-Mobile, and Verizon—make it possible to check your usage at any time on the carrier's web site or receive usage information via text message with the touch of a few keys on your mobile device. In addition, some carriers may alert you before you've used your allotted usage for the month or once you begin incurring overage charges. All major carriers also offer parental controls. These services vary but typically allow parents to set limits on their children's downloads-including games, ringtones, graphics and applications-and data usage per billing cycle. It's wise to take advantage of the tools and services that will help you stay within your usage limits. Staying in control of your phone bill is easy when you know how.

TIP

The length of your contract, typically one or two years, will affect the price of your device. With a longer contract, the price of your device may be lower, but you may be subject to an early termination fee if you cancel service prior to the end of the contract term. Both retailers and carriers offer devices without a service contract.

Learn more and access tools to help measure your data usage at www.WirelessED.org

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