



Smartphones

Everything you need to know about
buying a smartphone

Smartphones are the next big thing in mobile communications and now's the perfect time to discover all the fantastic features they have to offer.

Step-by-step, we'll help piece together everything you need to know to make an informed smartphone purchase. From their key features and everyday benefits, to how much they cost and information about the best makes and models.



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Our Complete Guide to Smartphones is bursting with useful information about how to make the most of smartphone ownership.

Discover which features separate smartphones from ordinary mobile phones, how smartphones can improve everyday life and the tricks you need to know in order to choose the perfect smartphone deal.



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Smartphones simplified

At the turn of the 21st century, mobile phones were clunky things that made telephone calls, sent text messages and, if you were lucky, took pictures too.

Since then a new, more advanced breed of mobile phone - known as the “smartphone” - has emerged.

But what exactly is a smartphone?

▶ Smartphones explained

A smartphone is a mobile phone that offers more advanced features and capabilities than an ordinary mobile phone.

A smartphone can handle everything from calls and text messages to wireless internet, films and emails. Smartphones integrate the functionality of a mobile phone with a PDA (personal digital assistant) and other electronic devices, such as an MP3 Player.

▶ Key smartphone features

Whatever the make, whatever the model, every smartphone will include the following three key features:

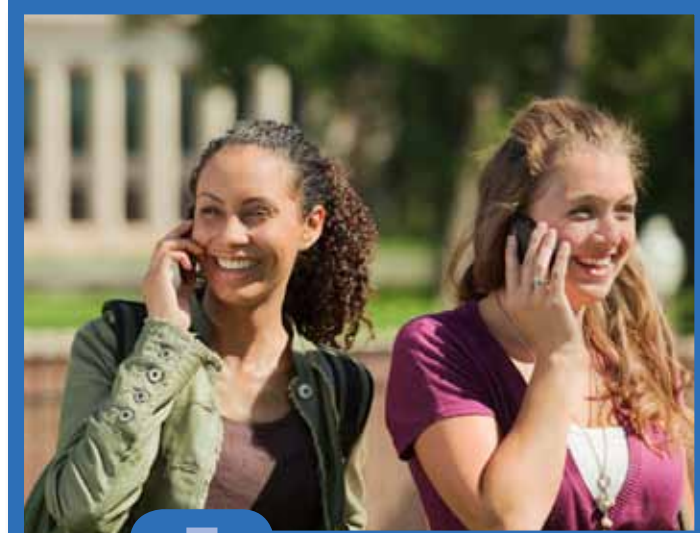
1. Mobile internet

Mobile internet lets you access the internet from your smartphone and the feature relies on two technologies:

■ Wi-fi - The same technology that lets you wirelessly surf the internet on a laptop from home. Smartphones wirelessly connect to your home broadband router, just like your laptop, and websites load quickly. Using smartphone wi-fi counts towards your broadband package's download limit (www.broadbandchoices.co.uk/top-tips-for-downloaders.html).

■ 3G - Lets you view web pages and videos on your smartphone while away from home. Web pages are generally slightly slower to load over 3G than wi-fi. Your mobile network operator, O2 or T-Mobile for example, will provide your smartphone with a 3G connection and the cost will depend on your chosen mobile package.

The costs of running a smartphone and accessing mobile internet services will be covered in more detail in [Section 3](#).



The term “smartphone” is often abused by manufacturers to jazz-up ordinary mobile phones.



Websites including the BBC (www.bbc.co.uk/mobile) and Amazon (www.amazon.co.uk/mobile) have created special versions of their pages which display neatly on smartphones.

Smartphones features versus ordinary mobile phones		
Features	Smartphones	Ordinary mobile phones
Phone calls and texts	Y	Y
Wireless internet	Y	N
Touchscreen	Y	N
Apps	Y	N
Games	Y	Y
Navigation tools	Y	N
Email	Y	N
Music	Y	N
Video	Y	N
Camera	Y	Y

Section 1: Smartphones simplified

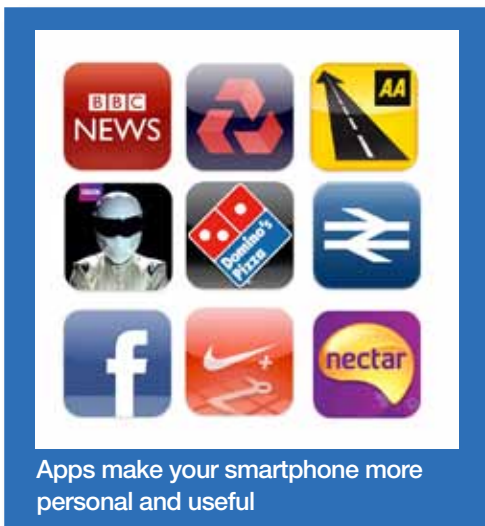
2. Downloadable apps

“Apps” are pieces of downloadable software that make your smartphone more personal and useful to you.

Popular app categories include games, news, music, sport, photography, news and money.

The Apple App Store (www.apple.com/uk/iphone/apps-for-iphone) is the best-known source of smartphone apps. It works on all iPhone models and offers over 220,000 different apps.

If you have a smartphone with the Google Android operating system (OS), you can get apps from the Android Market (www.android.com/market).



3. Touchscreens

Smartphone manufacturers are increasingly dumping physical keypads, like those on old Nokias, in favour of interactive screens.

Touchscreens, as the name suggests, let you open apps, play videos, view pictures and surf the internet just by tapping or swiping your finger on the screen.

“Virtual” keypads pop-up onscreen, and you tap on the surface to write emails and text messages.

Some people adapt to typing on touchscreens very easily. Others find it more difficult. Thankfully smartphones are available which offer both touchscreens and physical keypads.

Case Study



“I bought a smartphone and never looked back”

London-based graphic designer Peter May, 29, bought his first smartphone after years of owning ordinary Nokia mobile phones. “Most of the time I only sent text messages and made the occasional call, so I didn’t see the point of buying a smartphone,” says Peter.

Peter was also initially sceptical of smartphones, because of the perceived expense. But when he started a new job he found himself checking emails away from the office, so a smartphone seemed ideal. “I bought an iPhone and was amazed by how easy to use it was. I can read and reply to emails from anywhere, plus wireless internet is really handy.”



Touchscreens let you operate smartphones by tapping on the screen.

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The benefits of a smartphone

Smartphones aren't complicated devices and manufacturers spend millions of pounds making sure that they're as easy to use as possible – if smartphones were too complicated people wouldn't buy them, and smartphone sales are rocketing!

Just over 54m smartphones were sold during the early months of 2010 alone, according to market watcher GfK - that's a 48.7% increase in smartphone sales since 2009. Analysts have also predicted that smartphone sales will overtake sales of more basic mobile phones by 2012.

So why should you consider buying a smartphone? Read on to discover all their benefits...

► What can you do with a smartphone?

1. Find the cheapest deal – Android Market and Apple's App Store both contain barcode scanner apps designed to help you find the cheapest price for products, potentially saving you time and money.

For example, if you're looking at an expensive book in a high-street shop, use your smartphone to scan the book's barcode (the app uses the smartphone's camera for this) to find the cheapest available price online.

2. Free international calls – Skype (www.skype.com), has launched a free application for making cheap international calls from a smartphone. The app requires you to create and credit a Skype account with some money - perhaps £10. Because the app sends your voice over a wi-fi signal, call rates to overseas numbers are cheaper than landlines. Calls to UK landlines are also cheaper with the app.

3. Never get lost again – Smartphones come pre-installed with interactive maps for finding your way from A to B. The most popular map is Google Maps, a mini version of the Google mapping service.

These interactive maps can accurately plot the location of your smartphone anywhere in the world. Finding the way to your destination is then as simple as entering a postcode, street name or point of interest. Some smartphones, such as the **iPhone 4**, also have an integrated compass that makes using the interactive maps even easier to use. Others, such as Nokia Maps, can be used as a satnav.



Over 54 million smartphones were sold during early 2010 alone.



Smartphones have interactive maps for getting from A to B.

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Section 2: The Benefits of a Smartphone

4. Book a restaurant – Because smartphones connect to the internet, any restaurant that accepts web-based bookings (and many do) can be used to make a reservation. Some restaurants, such as noodle chain Wagamama, have dedicated smartphone apps. These are usually free and let you easily do everything, from making the initial booking to browsing the menu.

5. Watch movies – Smartphone screens can measure over 4in, making them the ideal device for watching movies on-the-go. Apple iTunes and various other online stores have been created to make downloading movies using smartphones extremely easy. You won't need a PC to get a movie onto a smartphone as videos can be sent to the phone wirelessly over wi-fi or 3G connections.

6. Educate yourself – The Wikime app feeds you interesting and useful information about your current location. Open Wikime while walking through Holborn, London, for example, and it would link you to fascinating articles about Lincoln's Inn law society, the Strand Underpass that connects Waterloo Bridge to Kingsway and the history of Holborn tube station.

7. Find something in the dark – Smartphone's bright screens come in handy for finding things in the dark, like your door keyhole or the TV remote under the sofa. The **HTC Wildfire** uses an app to control the smartphone's camera flash, allowing you to adjust the brightness of the improvised torch by tapping on the screen.

8. Excuse yourself – Coming up with reasons to leave a meeting or to excuse yourself from an awkward conversation is never easy. However, the Fake-A-Call app "calls" your smartphone to make it look like you have an incoming urgent call. Pre-set the app to "call" you at a specific time and then adlib a conversation. Recorded voices and scripts can also be chosen to help make the fake call sound more believable.

► Personalising your smartphone

Apps are key to personalising your smartphone because they let you decide which features you need and which you don't. The result is a unique smartphone, with a personalised set of tools.

For example, let's say you travel frequently. You could download a mixture of apps for finding everything from nearby hotels to restaurants and shopping centres. Apps for understanding local languages and foreign currency convertors are also available.

Perhaps you're a photography fanatic? Apps could be used to make sharing images from your smartphone extremely easy.

For example, a picture captured using a smartphone camera could be edited using an imaging app, posted onto Facebook using the social network's dedicated app and then emailed to friends around the world - all without turning on a PC.

Case Study



"I bought a cheap smartphone for practically nothing"

Coventry-based teacher Nikki Baker, 32, was quick to realise the benefits of smartphones. But she didn't want to fork out loads for the phone and be tied to an expensive monthly contract.

She bought the **Orange San Francisco** smartphone, available on pay-as-you-go. The handset cost her £100 and she spends roughly £10 per month on credit. "San Francisco's wi-fi support lets me surf the internet for free from home and work," says Nikki.

It only took Nikki a few hours to get acquainted with the smartphone, which runs Google's Android operating system. She downloads apps from the Android Market online store: "My smartphone apps really reflect my needs. I have apps for emailing, apps for videos and lots of games," adds Nikki.

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Getting the right smartphone deal

Smartphones can make your life easier, helping you be more productive and keep in touch with friends and family.

If you're still unsure of whether or not to buy a smartphone, consider these benefits:

- **Productivity** – Smartphones let you manage emails remotely, so you don't have to wait until you're back at home with your computer.
- **Connectivity** – Keep yourself up-to-date with what your friends and family are doing by accessing social networks from apps on a smartphone.
- **Entertainment** – Videos, music and games are a big draw on smartphones. And because films, music albums and games can all be downloaded directly onto a smartphone from an online store, you won't need to go shopping.

So how do you get the best deal for your new smartphone?

▶ Getting the right deal

You'll need to evaluate whether you want a contract, how long you're prepared to be tied-in for and what features you can't live without.

1. Contract versus pay-as-you-go (PAYG)

Before buying a smartphone it's important to compare the best prices online to ensure you get the right mixture of talk minutes, texts and mobile internet.

Networks usually subsidise the cost of smartphones if you sign-up to a pay monthly package. This means you could receive a free smartphone by committing to an 18 or 24-month contract.

The most popular smartphones usually carry upfront fees, for example [Apple's iPhone 4](#), which can cost up to £600 if bought without a contract.

Smartphones can also be bought on PAYG. You will probably have to pay an upfront fee for the phone (between £10 - £200, depending on the model), but the option gives you the benefit of not being tied into a monthly contract.



Smartphones bought on pay-as-you-go may demand an upfront fee.



Save on smartphone mobile internet costs

- Compare smartphone mobile internet packages carefully.
- Most deals include a 500MB, 750MB or 1GB allowance.
- Buy top-up bundles that add extra mobile internet use to your package for, say, an extra £5 per month.



Section 3: Getting the right smartphone deal

2. Mobile internet costs

Mobile internet is a key smartphone feature, but the service comes at a price. Surfing the internet from a 3G smartphone that doesn't include a "mobile internet allowance" could be costly.

All the major mobile networks offer smartphone packages including a set amount of mobile internet use, just like your home broadband package.

Typical smartphone packages will include 500MB or 1GB worth of monthly mobile internet use over a 3G connection. But wi-fi use is free and unlimited, don't forget.

Working out how much of your allowance you've used after viewing a few web pages, watching some videos and reading a couple of emails can be difficult. But, according to O2, the majority (over 90%) of its customers use less than 500MB per month.

3. Screen size

What screen smartphone screen you need will depend on what you intend to use it for:

- **2-3in** – Small screen smartphones, such as the **Nokia C5**, are ideal if you don't want a large phone taking up pocket space. This size is just large enough for writing emails and text messages if the screen is touch-sensitive. But anyone with chunky fingers could have problems.
- **3-4in** – Mid-size smartphone screens are ideal for just about anything. At this size, touch-sensitive smartphone screens can easily be used for writing emails, watching videos and surfing the web. For example Apple's **iPhone 4**.
- **4in+** – Large smartphone screens, like the **HTC Desire HD**, are best suited for anyone who wants to watch lots of videos. Larger smartphone screens generally have the best resolution, making your movies bright and crisp. Supersized screens are very power hungry, though.

4. Camera

All smartphones have integrated cameras nowadays, though the quality still varies vastly between models.

Some smartphones will have a 5Mp camera (good enough for taking pictures of friends and family). More advanced smartphones could have 12Mp cameras, an integrated flash for lighting up pictures and pre-installed software for airbrushing your images.



Section 3: Getting the right smartphone deal

5. Battery life

Because of their advanced features and bright screens, smartphones need lots of power.

How long a smartphone will last between re-charges depends what you use it for and for how long. Watching films for three hours will probably run-down the battery completely, for example.

However, smartphone battery lives can be easily lengthened by turning down the screen brightness and turning off seldom used features like Bluetooth.

The iPhone 4's battery has a maximum quoted talk-time battery life of seven hours, while the **HTC Wildfire** and **Nokia N8** both last for over 10 hours between charges.

6. Music

Smartphones can store lots of music and so are a popular alternative to dedicated music devices, like Walkmans and iPods.

Music can be transferred onto smartphones using a PC, or downloaded directly from an online store, such as iTunes.

Songs are automatically categorised according to the album, track name, artist and genre. Most models even download album cover pictures to make finding songs on the phone easier and more fun.

The number of songs smartphones can hold depends how much storage it has. Smartphones with, say, just 2GB of storage won't save as many as smartphones with 32GB of storage.

► The future of smartphones

Smartphones are the cutting edge of mobile phones. But what new and amazing features will smartphones offer in the future?

3D displays – Smartphones with 3D screens are already available in Japan. As increasing numbers of 3D movies are released in the cinemas it probably won't be long before you're watching 3D films on your smartphone.

Augmented Reality (AR) – These apps overlay real-time information onto Google Maps. Say you're walking down the high-street, AR will show you nearby restaurants with lunchtime offers and display customer comments recently published online, among many other options.

Super-fast mobile internet – 4G will replace 3G to make web pages, videos, pictures (anything based on the internet, basically) load much faster over a wireless connection. Services including live TV and video streaming (rather than downloading) will be possible. The US already has a 4G network.



4G will replace 3G to make mobile internet on smartphones faster than ever before.



Augmented reality apps help you find things in the surrounding area, such as London Tube stations and points of interest.

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Glossary of smartphone technical terms

Accelerometer – A sensor inside a mobile phone that detects sideways and horizontal movement and rotates the display accordingly.

Android – A smartphone operating system developed by Google. Android is especially common on smartphones manufactured by HTC.

Apps – Small programs that can be downloaded from online shops directly onto mobile phones. All sorts of apps are available, from games and photography to entertainment and navigation. The most common online app stores are the iPhone App Store and Google Android Market.

Bluetooth – A way of wirelessly sending data, usually pictures or data files, between mobile phones.

Cameraphone – A type of mobile phone that's especially good at taking pictures. Mobiles with more than 10 megapixels are usually referred to as cameraphones.

Geo-tagging – A mobile phone that remembers the geographical coordinates of images captured using its camera.

GPS – A wireless connection between mobile phones and satellites which allows your geographic location to be shown on the phone's screen.

HDMI – A type of cabled connection that lets your phone send HD resolution images and videos to other devices, usually your TV.

Memory cards - 21st century floppy disks (but much smaller) that give mobile phones somewhere to save data, usually pictures and music files. SD and Micro SD are the most common types of memory card.

Micro SIM - A smaller version of the standard SIM card. Currently Micro SIMs are only used by the [Apple iPhone 4](#) and the Apple iPad tablet PC.

MMS - Pictures - usually taken by your phone's camera – sent wirelessly to another mobile phone. MMS messages are often combined with texts so you can explain your picture to the recipient.



Glossary

PAYG - Pre-pay network deals require you to add credit before your phone can make calls, send texts or surf the internet.

PUK code - A four digit code provided by your network operator and used to unlock your SIM card.

SIM - A removable card - about the size of your thumbnail – that allows your phone to connect to a mobile network and make calls, etc.

SIM only - A type of network deal that only includes a SIM card and not a new mobile phone.

Smartphone - An advanced mobile phone able to send/receive emails, surf the internet, take pictures, download apps and more.

SMS - Short text messages or “texts” sent between mobile phones.

Touchscreen - Usually found on smartphones. A touchscreen lets you do everything from surfing the internet to writing text messages (SMS) by placing your fingertip onto the glass surface.

Wi-fi - A fast wireless broadband connection – typically used in homes, cafes and airports - that smartphones can use to connect to the internet.

3.5mm jack - The standard size of headphone connector for mobile phones. Some mobile phones will have a different type of jack, so you may need to buy a converter to use your own headphones.

3G - A speed of wireless data communication usually found on smartphones. 3G phones access the internet and download content, such as videos and pictures, at slightly slower speeds than your PC.





About us

At Consumerchoices.co.uk we empower you to save money and make the best choices to suit your own circumstances. We do this by providing thoroughly researched, practical, unbiased and comprehensive information on the following services:

- ▶ Broadband
- ▶ Home phone
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- ▶ Insurance
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We provide informative consumer guides, up-to-the-minute news on key industry developments and the chance for you to "Ask Our Expert" for personalised responses to specific questions and issues.

As well as detailed, insightful editorial, Consumerchoices.co.uk has a wide selection of comprehensive calculators, allowing you to compare products and services across a broad range of suppliers.

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About O2

O2 is one of the UK's largest mobile phone providers, however also offers broadband services to consumers and businesses. The company is the leader in non-voice services, including text, media messaging, games, music and video, as well as data connections via GPRS, HSDPA, 3G and WLAN.

As part of the Telefónica O2 Europe group, O2's fixed/mobile services can be found in the UK, Ireland, Germany, the Czech Republic and Slovakia. In addition, O2 has established the Tesco Mobile joint venture business in the UK and Ireland, as well as, the Tchibo Mobilfunk joint venture in Germany. O2 is a wholly-owned subsidiary of Telefónica S.A.

As at December 2007, O2 had more than 40 million fixed and mobile customers across Europe and 29,000 employees. O2 UK has over 18.4 million customers.

O2 was formed in 2001, following the demerger from British Telecom of its former mobile business, BT Wireless.

