Tips on Buying Internet-ready Mobile Phones

Do you want a phone that connects to the Internet but are not sure which technology to bet on? If you are confused between the 2G and 3G models, read on to get all the latest on how to enjoy Internet browsing on mobile phones

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As you might be aware, India is amongst the fastest growing mobile phone markets in the world. With the development in technology, mobile phones are being used for voice as well as data applications. Many operators and service providers believe that mobile phones will become the primary medium to access information on the Internet, replacing laptops and PCs.

Access to e-mail and news updates are common reasons that drive demand for Internet access on mobile phones. "Apart from these, there are certain other applications that have gained popularity, such as social networking websites like Facebook and Orkut. Also, messenger services (of Yahoo, Gtalk, AIM, etc) will soon replace the SMS services," shares Naved Choudhary, head-marketing, Intex Technologies. Internet is the medium for seeking all kinds of information whether related to the stock market, cricket match scores or even movie schedules.

Do you have the bandwidth?

Lots of mobile phone applications based on the Internet demand good download speeds. The speed and data rates are critical in applications like video streaming, audio file downloads and live TV. Speeds provided by 2G are good for e-mails or small data transfer applications. But applications like video streaming or live TV require a high bandwidth and higher download speeds.

The pleasure of accessing the Internet on a mobile can only be felt with high speed. "Once you have 3G speed on your mobile, which is about 3.6 MBps downlink, you can watch a video on the move. This happens by using the Internet as the backbone. The video file resides on the server, to which you can connect using 3G connectivity, and view a video online just like you would see it on a TV monitor or LAN," explains Vikas Jain, business director, Micromax.

Internet applications in healthcare, education, employment and information-sharing have changed the value of the system. Online searches, games, music downloads

Nokia N97 mobile phone

and video streaming of movies are some other Internet applications that are in great demand.

Advertising through the mobile Web is another growth area. There is a lot of demand for value-added content but the need is of a capable network that can deliver content and services.

Features that matter

Experiencing the Internet on a mobile phone is different from the real Internet experience. A mobile phone is an extremely complex device with limitations of screen size and keypad. To actually enjoy browsing, you need a decent screen size on a mobile phone. "A 5.6cm liquid crystal display (LCD) is fairly suitable for the mobile Internet. If the screen size is smaller, it becomes cumbersome to scroll and view content," says Jain. A bigger size is definitely better but it adds to the cost.

"A touchscreen phone helps in better navigation in the browser," claims Prem Kumar, CEO, Fly. "The quality of display lens is important. A capacitive touchscreen provides multi-touch functionality as well. For someone who uses the Internet a lot on a mobile phone, a multi-touchscreen display would be preferred. This makes surfing the Web easier and prevents struggling with small keypads while clicking," adds Kumar.

Most of the websites use client-side scripting and the storage of cookies for an improved user experience. Java, Flash and other third party solutions need to be designed for mobile phone operating systems to support the modern Web. Java-enabled phones are what you should look for. Flash lite is another software that is forging ahead to run perfectly on mobile Internet devices. This is required to view videos on mobile phones.

Another important factor that controls your access to the Internet on a mobile phone is the mobile Web browser. The browsers greatly differ in features and the operating systems they are supported with. An ideal browser should have features like multi-tabs, zoom in and compressed downloads for fast browsing, bookmarking and customisation. Opera Mobile offers the multi-tab feature while Opera Mini offers compression for fast browsing. Google Android and Safari provide a rich display of websites. Mozilla's Minimo and Microsoft IE for mobiles are some other popular mobile Web browsers.

Intex IN 4477 dual sim mobile phone

Mobile Internet technologies

The 2G world. Presently, most people in India either use general packet radio service (GPRS) or EDGE to access the Internet on a mobile phone. GPRS is a 2G service of the GSM network. The speed is around 25 to 40 kBps (it can ideally support up to 115 kBps), whereas the enhanced data rate for the GSM network (EDGE) can support speeds of 256 kBps. The data rates vary depending on the network strength, traffic and the capability of the mobile handsets.

The 3G world. "If you have a 3G handset, and you use it with the existing Airtel or Vodafone services that still operate in 2G, you will still get the speed of EDGE, which is 256 kBps," says Jain. With the 3G mobile phone, you need a 3G network to allow you to enjoy high-speed Internet applications. 3G networks will enable operators to offer a wider range of services such as video calls and live TV, which are not yet available in the Indian market.

There are different technologies in the GSM and CDMA standards that work in the 3G spectrum to offer different uplink and downlink data rates. The wide-band code division multiple access (WCDMA) of GSM provides maximum downlink speeds of 384 kBps. High-speed downlink packet access (HSDPA) extends and improves on WCDMA, taking the speed to 3.6 MBps.

Most early 3G handsets marketed in India were WCDMA. Nokia N70 and N73, Motorazr V3XX, LG Ku990 are some of the 3G phones that support WCDMA and not HSDPA. All the latest varieties of 3G phones like Apple's iPhone, Nokia N96/N97/E71,

3G handsets

Some brands that are already offering 3G mobiles phones in India:

- Apple
- Blackberry
- Fly
- HTC
- i-mate
- LG
- Micromax
- Motorola
- Nokia
- PalmTreo
- Samsung
- Sony Ericsson
- Spice

Samsung Omnia, and HTC Touch are HSDPA phones. "In CDMA, 1xEVDO provides high-speed Internet on mobile phones," says Kumar.

MTNL and BSNL have already launched 3G services in India. These are being readily accepted by the urban population. The 3G spectrum auction is expected to begin soon, allowing more operators to offer 3G services, but let's see how things unfold on this front.

Recent launches

Many new handsets offering mobile Internet through GPRS and EDGE are hitting the market. The market is still open for these technologies, before 3G is completely established. "Dual-SIM GPRS handsets from Intex—IN4477 and IN4495—offer larger displays that are suitable for Internet browsing," says Choudary. Nokia 2G phones are robust and offer good connectivity to the Internet.

Micromax is launching the H360, a 3G HSDPA phone with MTNL service, for a price as low as Rs 5500. The Micromax H365 is another 7.1cm touchscreen 3G HSDPA phone that is coming out soon, according to Jain.

Fly launched the first 3G 1xEVDO smartphone named Ivory in India along with MTS. It has a full touch display with a maximum download speed of 3.6 MBps. Fly is also working on 3G GSM phones and Android phones, which are eagerly awaited.

Affordability factor

A study shows that 50 per cent of mobile phone users use the Internet, out of which 80 per cent comprise the youth. In this segment, affordability of high-speed Internet becomes an important criteria for the handset manufacturers as well as the service providers.

"Affordability is the cost-to-value equation. If the absolute cost is higher, the value benefit will be exponentially greater. If the value is worth the price, the question of affordability is taken care of," says Kumar. "When we talk about what customers should get, we should compare the value benefits and not just the absolute numbers," he adds.

"In India, no operator subsidises the cost of mobile phones like they do in the US, where the cost of phone is recovered in a year or so," says Jain. "The potential is there in the network; there are many services and applications and it's just a matter of breaking down the price barrier," he adds.

"Many players are studying the market needs and are trying to come up with an affordable device," says Choudary. Service operators are offering different plans and packages for 3G services. Some of them are data plans of a fixed amount and some involve users paying for the volume of data transferred.

The 2G technology GPRS efficiently uses limited bandwidth to send and receive small data packets. EDGE is a faster version of GPRS and can be considered as 2.5G technology. These phones are good for e-mail and Web browsing applications. But if you are looking for a phone to watch the IPL on the move, you should opt for 3G. WCDMA, HSDPA, 1xEVDO all operate in 3G and offer high-speed downloads. These high-data rates are capable of delivering high-quality audio and video on the move for a wireless mobile handset. ●

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