

Introduction – the Mobile Internet

Using WAP 2.0 (which is based on XHTML), GPRS and 3G phones can ‘surf the mobile internet’. This brings mobiles closer to PC internet standards.

Forget first generation WAP

We call it the ‘Mobile Internet’ these days to differentiate between the latest and the first versions of the protocol used to deliver a web experience on the mobile phone (i.e. WAP or Wireless Application Protocol).

WAP 1.0 was black & white and very slow whereas the latest generation of WAP (2.0) is based on the same XHTML standards (Extensible Hypertext Mark-up Language) used by PC browsers such as IE and Firefox and supports mobile internet sites and applications.

WAP 2.0 gives a superb, interactive online experience in full colour

For the non-technical, WAP 2.0 gives a mobile internet experience that uses the full colour range of the handset screen, allows forms (text boxes) to be completed and submitted, enables links to be followed and applies a set of standards that should ensure all handsets render a high quality mobile internet website (or WAPsite).

Since 2003 most mobiles have adopted WAP 2.0 for rendering mobile internet sites and in the last two years a consensus has emerged that mobile internet sites should be tall and thin like the image to the left.

Do I need two internet sites?

The beauty of the new standards is that, when written properly, one website should load correctly on a PC as well as old and new mobile phones and PDAs. This means you need only one website – a single URL or web address – and should have to maintain only one set of content. This does however assume some forethought has been employed during design.

Of course what you see on different devices will look different since screen orientations and sizes vary, even though one set of code is delivering multiple versions of the site. Take a look at the Incentivated website (www.incentivated.com) on your PC and mobile for example. When you open the page our web server determines what



device you are using and then, via XHTML, delivers the relevant information.

Can anyone produce a WAPsite?

In the PC world designers design for two or three internet browsers simultaneously. In the mobile world a WAPsite needs to handle more than ten times as many handset/ software/ network combinations – in real time. This is where Incentivated's proprietary software comes in. We employ some of the best WAP programmers in the UK and we also have an up to date database of all mobile phone handsets in use. This allows us to serve optimised content.

We also have the technology to track users and usage, something that the mobile networks will not give to you without you entering into an agreement with each one of them (per country).

If you do not want to develop these skills in house we can either build and host both your web and WAPsites, or host your WAPsite by taking an XML content feed from your web-server. This enables us to deliver a superlative experience based on the capabilities of the user's phone while you retain control of your existing site. In both cases content need only be updated once.

DIY WAP Publishing Tool

For new WAPsites or if you do not need to run a website and WAPsite from the same source, clients can build and maintain a WAPsite themselves using Incentivated's WAP Publishing Module. This requires no technical knowledge however it does require you to have design resource to hand. If you do not, then we can do the design work as well.

Functionality includes static or animated graphical headers and footers, standard (e.g. left/ right/ centrally justified & bold/ italic/ underlined/coloured) text, links to other pages as well as file downloads (e.g. wallpapers, video clips etc) and graphical section dividers. All you do is upload your images, add and format your text and decide how to link pages before publishing the site (which would reside on our WAP-servers).

Bespoke WAPsite development

If you want a more complicated solution than the WAP Publishing tool allows we can build a bespoke WAPsite. As an application protocol WAP enables applications on the mobile to access other information from online servers connected to the wider internet. Secure processes such as online banking can be conducted using WAP as well as from a PC.

WAP 2.0 design limitations

Mobile phone screens are smaller than the latest PC monitors but have almost as many pixels as some of the earlier PCs. Resolutions are now high enough to render photographs and logos. However the portrait layout (typically) of a mobile handset and the fact that scrolling down as opposed to sideways has become accepted practice means there are some limitations to be aware of. Other limitations include:

- The resolution of the largest screen is over 12 times greater than the smallest.
- Banners and dividers should be limited to <3k (GIFs / JPGs) to ensure fast loading.
- Splash pages (and Flash) should be avoided until the majority have 3G.
- Always include 'back' and 'home' links on each page as the user does not have a keyboard to aide navigation. The shorter the URL (address) the better.
- Make sure your site is optimised for new mobile search engines such as Google.

Need more technical details?

Internet standards that have been adopted in WAP 2.0 include Cascading Style Sheets (CSS), Transport Layer Security (TLS), HTTP and TCP. XHTML, developed by the World-Wide Web Consortium (W3C), is a language used to create all pages, regardless of whether it is intended for the fixed Internet or the mobile phone world. By narrowing the gap between wired and mobile content, XHTML greatly accelerates the pace at which services can be created and improves the usability of mobile services for consumers.



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