

The wireless office comes full circle



It used to be a management dream: mobile offices that replicated the real thing. Now wireless is the real thing, both inside and outside. Bob Emmerson considers the implications.



It is ironic that the ability of IP-centric communications to deliver on virtually all those early, over-hyped promises comes at a time of economic uncertainty. For example, we waited and waited for 3G, and then high-speed wireless data in hot spots came along, courtesy of the computing industry. Moreover, Wi-Fi is much faster and in many locations access is free.

Hot spots in hotels, conference centres, airports and Starbucks have turned the mobile office into a practical and affordable proposition. Data rates are similar to that of wireline LANs and they are set to reach 50 Mbps. The interface is built into the new notebooks and PDAs and PC cards have become a commodity.

Companies are adding wireless extensions to their legacy infrastructure and some are even going for a 100% voice/data wireless environment. Adding a VoIP gateway or replacing the PBX/key system with a softswitch allows PCs to morph into phones. Not such a big deal in the office, but it enables IP telephony calls to be made from hot spots and hotel rooms that offer flat rate Internet access. You'll still need to pack the cellular phone, but bills will be cut down to size.

Issues? There must be issues. Security was an issue, albeit one that was over-hyped. A better standard has been created, albeit somewhat late, but vendors such as Cisco are marketing robust, proprietary solutions so there is no need to wait.

IT'S ALL ABOUT APPS

Wireless apps were conspicuous by their absence. Service providers ignored the market for wireless data and low-speed, circuit-

switched access was expensive, being based on time and distance. IP has changed everything and enabled a real paradigm: heavy-duty work in the hot spots; low-speed trickle through of email and IM via 2.5G.

A modest amount of lateral thinking indicates that we have come full circle. Management used to want workers to be able to work just as well outside the office as inside. That was in the days of wired LANs and poor wireless services. Now both environments can be the same: one doesn't replicate the other, it is the other. Thus, every app that is on your notebook can be employed while out and about. There are no limits. That said, the way of working is different and that is reflected in the way applications are used as well as the devices that run them.

WIRELESS HORSES FOR WIRELESS COURSES

As soon as you can do everything you start to question what it is that you actually want to do. For example, does a salesperson really need to tote a fully featured notebook? The average road warrior, as they used to be called, will need email, maybe filtered, as well as access to one or more databases in order to check on prices and delivery times and hopefully go on to book an order. These are tasks that powerful PDAs can handle.

As illustrated, these devices can display everything our hypothetical salesperson needs: he/she gets a unified overview. The individual windows are small, but a single click will expand them and they can be scrolled. PDAs can also have wireless interfaces (Wi-Fi and 2.5G).

The information can also be customised, e.g. only the relevant parts of the back office databases are displayed and changes can be updated in real time. Thus, current price,

delivery and other data are displayed. As an encore, they also do telephony.

UBIQUITOUS COMPUTING

Ubiquitous (aka pervasive) computing is a great concept, but until Wi-Fi came along it was beginning to look like an impossible dream. Now, however, you can move around the office and retain the connection as you move from one cell to another. Reach is about 100 meters, so large offices need lots of wireless LAN base stations. Handoffs are seamless.

The next stage, which is technically feasible, is to enable seamless handoff to 2.5G when you leave the office. Then to go back and forth between the cellular network and the various hot spots you encounter. This process also includes retaining the secure access with which you started.

IRONIC CONCLUSION

Remember WAP and the Wireless Internet/Intranet? That was a telecommunications concept that never got off the ground. Now we have it, courtesy of the computing community, and service providers are playing a very lowly second fiddle. But then the only service they ever provided was plain vanilla voice (SMS, like penicillin, was a fortuitous accident).

Powerful PDAs running Pocket PC, a 'Lite' version of Windows, can employ virtually all mainstream desktop applications.

Bob Emmerson is a freelance writer who lives in The Netherlands. He can be contacted at b.emmerson@electric-words.org and via www.electric-words.org