

Computing Goes Mobile

Submitted by [Marc Holland](#) on Fri, 11/07/2008 - 14:40

in [computing](#), [mobility](#), [mpoc](#)

Panasonic introduces the Toughbook H1 Mobile Clinic Assistant

In the News

One of the challenges of integrating mobile point-of-care technology into clinical workflows is keeping up with the new tools available. My goal in this blog is to provide insight into one new product that is positioned to make a big impact. On November 4, [Panasonic introduced the H1](#), the latest addition to its Toughbook line of ruggedized laptops and tablets. The H1 is designed and built to the mobile clinical assistant (MCA) reference architecture first publicly introduced by Intel at the September 2006 Intel Developer's Forum. It is the second such product to be offered to the healthcare provider market. The first, of course, was the Motion Computing C5, which was the hit of the HIMSS annual conference in February 2007.

In this blog I'll compare the [Motion C5](#) and the new Panasonic Toughbook H1 and discuss the value of mobile point-of-care computing. In my next blog I will give some guidance on the products.

A Brief Comparison of the C5 and the H1 tablets

Since both tablets are based on the [Intel® MCA reference architecture](#), the Panasonic Toughbook H1 bears a strong family resemblance to the Motion C5. From our initial review of the H1 specifications, we expect the H1 will be a formidable and, in several respects, a welcomed competitor. Like the C5, the H1 includes a pen-based user interface, wireless LAN connectivity and a wireless WAN connectivity option, a built-in digital camera to enhance patient documentation and care collaboration, a built-in RFID reader and an optional built-in bar code reader to provide positive patient identification and enhance the safety of medication and transfusion administration. And, like the C5, it offers a ruggedized design. Both offer a sealed external case to facilitate cleaning and disinfection. The H1 incorporates the new [Intel® Atom™ processor](#) with low power CPU architecture, as well as dual, hot-swappable batteries, each of which has a Mobile Mark rating of 3 hours, or 6 hours in total. The latter increases the likelihood that an H1 can be used for an entire shift without requiring recharging. While MCAs used in hospital or clinic settings are often docked in chargers when not in use, longer battery life is particularly valuable for mobile healthcare field workers, such as home health service providers, who work outside of a hospital or office for their entire workday. Two alternative modes of security are provided: a contact-less Smart Card reader and a fingerprint reader. The H1 also offers an anti-glare, indoor/outdoor viewable display as standard equipment. These features are optional on the C5. The H1's touchscreen display technology accepts input from either a stylus or finger, although currently none of the device drivers from the major EMR vendors support touch screen input methods. The H1 also offers a GPS navigation option, which mobile users, such as home health providers, are likely to find very useful. The H1 design does not include a fan, yet provides what Panasonic claims is superior heat dissipation and cooler operation. The H1 also continues Panasonic's Toughbook tradition, which includes a magnesium chassis, reinforced resins in its outer casing and a shock mounted hard disk drive for maximum shock protection, similar to the construction of the C5. Pricing is expected to be in the low \$2,000+ range, comparable to that of the C5. Distribution will be through Panasonic's existing channel partners.

The Intrinsic Value of Point-of-Care Computing

Intel's MCA platform presents a significant opportunity to create a paradigm shift in the use of mobile, point-of-care computing in healthcare delivery. Cumbersome workflow and form factors have long been impediments to successful deployment of clinical information systems in general, and the use of point-of-care devices, in particular. The MCA platform was carefully designed by [Intel's Digital Health Group](#) specifically to address these and other issues that have inhibited wider use of clinical applications in acute care settings. Bedside documentation not only improves data accuracy, but also reduces paperwork, improving clinician productivity. Before the introduction of the MCA, clinicians had to compete for the nursing unit's wireless laptop carts or desktop PCs at the nursing stations to complete their charting after clinical rounds. Returning to the nursing station to chart electronically meant that clinicians were required to handwrite the notes they made or the data they collected at the bedside. This "double entry" has been a key impediment to clinician acceptance of electronic charting. While wireless laptops and mobile carts on wheels (COWs) represent an improvement over returning to the nursing station to input data, wireless laptops on carts are not always brought to the bedside. Visitors, other bedside equipment, cramped rooms and uneven door sills all contribute to situations where the carts are left in the hallway. A study published in November 2007 by [Spyglass Consulting](#) indicated that 76% of the acute care nurses interviewed left their COWs in the hallway and returned to them to chart when they exited the patient's room. Look for my next blog for some general guidance suggestions. Readers are encouraged to post their comments here or email me at mholland@healthindustry-insights.com

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