

## Wearable Computers In Healthcare.

Like Internet enabled home appliances, wearable computing captured the imagination of both the media and the public. Even so, for some time this enthusiasm failed to translate into commercially successful products. Recently, however, a number of companies have started to market garments which monitor the breathing, temperature and heart rate of athletes and keep fit enthusiasts. Now some healthcare providers have identified a potential role for wearable computers in remote patient monitoring applications. While we are a long way from the Utopian situation where clothing continually monitors our health we are seeing a growing number of applications for ehealth enabled wearable computers or 'healthware' in telemedicine and clinical trials.

In this report we make a business case for wearable computing in ehealth and explain the role of IT vendors, garment manufactures, communications companies and healthcare providers in this market. These players range from companies seeking to diversify into new and less competitive markets to new entrants to the healthcare sector hoping to build services requiring the minimum of manual intervention. A market will exist for front end and back office software to collect and analyse vital signs data. The data networks of mobile operators will provide an ideal platform for the 'always on' connections needed transfer data from patients to monitoring centres. Software and devices will be needed to provide middleware between garments and mobile networks – this could include a new generation of handsets and PDA applications to carry out pre-processing and transmission of patient data.

### The Business Case For The Healthcare Provider.

Healthcare providers are best placed to build a business case for healthware. They have most to gain from a simple and straightforward means of monitoring patients. Also, in their role as customer, they can define and dictate the specification of the products and services that make up a complete healthware solution. They can also aggregate a number of

### At a Glance

Wearable computers, designed to monitor the performance of athletes, are being used in some patient monitoring trials.

Ehealth providers will benefit if consumer applications lower the cost of wearable computer technology.

Wearable computing provides the mobile operator with an opportunity to market a suite of services, including ehealth, for their data networks.

Providing a public sector service, such as ehealth, may be politically beneficial for mobile operators.

### Inside the full report: -

The potential impact of wearable computing on ehealth.

Business cases for potential users and vendors of ehealth related wearable computing.

Profiles and analysis of Clothing+, Bodymedia, Benefon, Vitaphone, Infineon and Sensatex.