

## The power of the machines

**With M2M wireless technology, providers to deliver quality healthcare wherever patients live, without compromising on either cost or security**



Wireless technology: a walk in the park

In a changing and challenging world, healthcare professionals are increasingly turning to wireless technology to significantly improve practices around the world. National healthcare systems are facing challenges in prevention and in how to provide efficient medical care to an ageing population with growing incidence of chronic diseases.

The delivery of healthcare through mobile technologies (mHealth) can provide an answer. Remote wireless health monitoring will play a vital role in the development of new strategies aimed at improving access to and continuity of healthcare, while controlling costs at the same time.

A key technology to facilitate wireless health monitoring is cellular-based machine-to-machine (M2M) communication. With the patient's prior consent, M2M solutions enable mobile health devices to remotely monitor, connect and communicate the patient's health status to a medical specialist over the air.

Thanks to this technology, patients can benefit speedily from specialised services, wherever they are, especially in remote areas. Complementing face-to-face visits, M2M technology establishes an additional communication channel between clinicians and patients, removing geographic barriers and enhancing the quality of service delivery.

Unobtrusive and easy to use mobile health devices can suit a variety of telehealth purposes. This includes monitoring a patient's medication compliance (pill reminder); managing elderly patients through wearable

health monitors (assisted living); and helping chronic disease patients such as diabetics by providing assistance to bring blood glucose levels back to a normal range (chronic care management). Remote monitoring devices can automatically call for help (social alarms), enabling emergency services to react more quickly – and ultimately save lives.

**M2M technology establishes an additional communication channel between clinicians and patients, removing geographic barriers to good healthcare**

It's all about delivering the best care. Consistent and real-time monitoring of vital parameters or behaviour allows for early detection of a deterioration of a patient's condition, allowing timely intervention to help reduce expensive emergency situations and hospitalisation. It also encourages more frequent interactions with patients based on medical data gathered in real-life situations, improving the continuity of care.

Crucially, patients' electronic health records have to be strictly confidential, so how can healthcare providers ensure data is protected? Security is indeed a key requirement for the

adoption of electronic health records, with strict regulations controlling access to the content of an individual's online medical record.

The answer is safe M2M wireless technology, which allows for automatic and secure transmission of medical data from sensors straight into a patient's record, delivering a clear and complete picture of all aspects of a patient's health without compromising the privacy of the patient.

With more than 15 years of experience in digital security, Gemalto provides technology which enables healthcare devices to communicate over wireless networks in a highly secure fashion. Data transmission is based on the latest encryption technologies and security mechanisms inherent in modern cellular networks.

In addition, Gemalto also supplies healthcare providers with smart badges and strong authentication solutions to securely access patient records, ensuring only authorised personnel can retrieve sensitive patient data. Combining M2M technology, smartcards and other solutions Gemalto and Cinterion can significantly improve end-to-end security in wireless networks, safeguarding patient information and meeting regulatory requirements.

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