



New Zealand: Small Country, Big Ideas

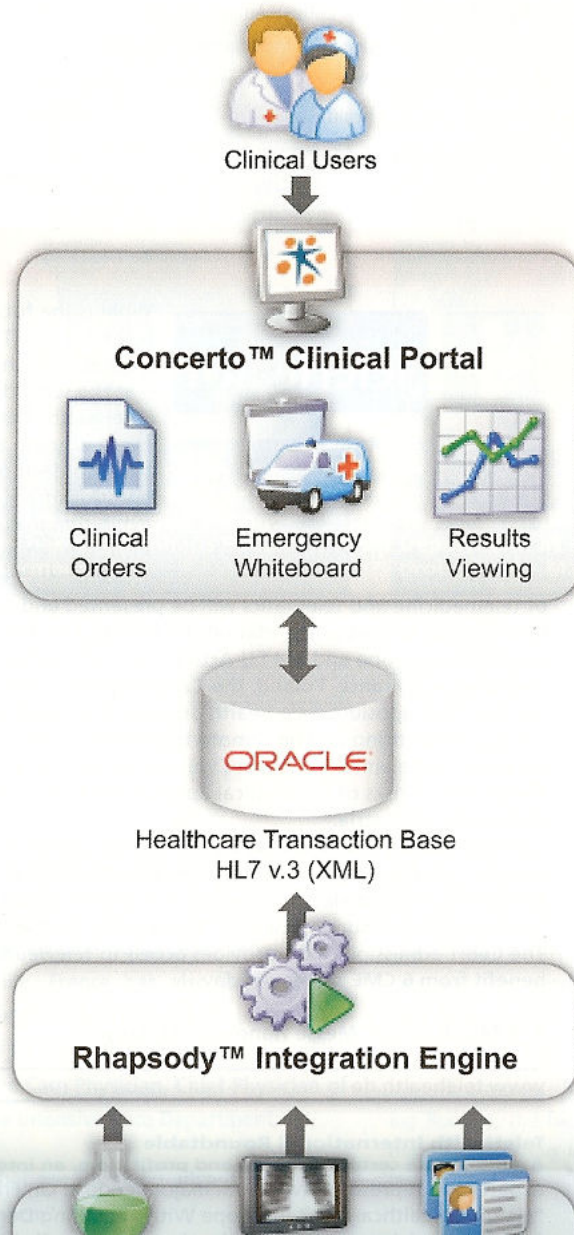
A Rapidly Growing List of Health IT Products and Solutions for the International Market

New Zealand has a population of 4 million spread over an area of 270,000 square kilometres. 85% of the people are concentrated in urban areas. Therefore the country has invested in innovative solutions to the health care system. This investment, in turn, provides fertile ground for the development of a wealth of IT products now been exported to countries all over the world.



Kelly Brendan, New Zealand's Ministry of Health

Health IT in NZ emerged through the particular needs of the NZ healthcare system. The small size of the population, coupled to the remoteness of many inhabitants not to mention the remoteness of the country itself meant that local firms found a niche in creating cost-effective solutions for the



End-user device for Healthphone Solutions' Concordia

plier's flagship product, is an electronic health record, patient care and healthcare business solution accessible via the internet and mobile networks, making it always available at the point of care.

Applications In NZ

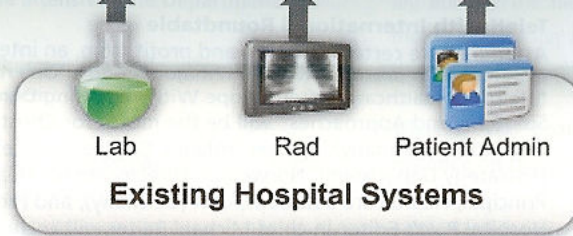
Applications included the need to integrate and share information from diverse applications which led to the development of Orion's Rhapsody, while their Concerto technology allows physicians to view all relevant information for a patient on one screen. This information is pulled from several different sources and formatted automatically. Another application is the point-of-care web portal technologies, now

Son Dureta in Palma de Mallorca, Spain, using the new Motion C5 mobile clinical assistant platform. Using RFID technology, integrated into the MCA, to read patient wristbands, the doctor or nurse will be able to access patient information, such as demographics and clinical results (e.g. blood tests, scans etc). The deployment of Orion Health's clinical software onto the Motion C5 MCA will enable patient data to be available at the point of decision regardless of whether the patient is in a bed, on a stretcher, or being moved in a wheelchair. The healthcare professional will be able to validate the data by sharing it directly with the patient. The Motion C5 is based on the Intel mobile clinical assistant platform and was designed following Intel's extensive research with clinicians around the world.

Orion Health and Oracle technologies are already implemented at Son Dureta Hospital, bringing together clinical data from multiple systems across the facility. The Oracle-Orion Health solution comprises a clinical web portal, a central repository for clinical data, and an electronic whiteboard for the accident and emergency department. These systems were implemented in 2006 in partnership with Fujitsu Services.

Precept has sold into hospitals in South East Asia with success, and intends to move into the Middle East and Europe. Its critical care information system (CCIS) provides a complete integrated solution for the point of care as well as unit management. The

to the remoteness of many inhabitants not to mention the remoteness of the country itself meant that local firms found a niche in creating cost-effective solutions for the IT infrastructure. Also the willingness of



Orion's Concerto software

the medical community to adopt new technologies has meant significant adoption of IT.

A major contributor to the field was the introduction of the National Health Index number as a unique identifier for each person accessing health and disability services in New Zealand. This number and the database provide the ability, among other things, to transfer clinical information between agencies, and to link data in national databases for monitoring, research and reporting purposes. It has now been in operation since 1993 and is linked to every health provider, in all categories, in the country.

The District Health Boards (DHBs) are responsible for providing (or funding the provision of) government-funded health care services for the population of a specific geographical area. There are 21 DHBs in New Zealand and they have existed since January 2001.

The country's spending per capita in health care was US\$2,084 in 2004 with an average length of stay for acute care around 5.6 days in the same year. Practitioners have the second-highest rate of electronic patient record use, second only to Denmark.

A Choice For IT

According to Brendan Kelly, Chief Advisor, Health Information Strategy & Policy, New

Zealand's Ministry of Health, the use of IT in the sector was chosen as the way to address the challenges of improving quality of care, enhance productivity and organizational workflow efficiency, improved information, and to reduce costs.

The industry provided solutions that, being tested in a small population, became ideal to be transferred and adapted to other larger countries and a variety of health systems around the globe.

'It is encouraging to see this innovative technology now being adapted and adopted elsewhere in the world,' Mr Kelly added.

Some Suppliers

Orion Health provides integration and clinical workflow software. The company's key products, the Concerto clinical portal and Rhapsody Integration Engine, form a 'clinical integration framework' to assist the creation of Electronic Health Records across organizations, regions, and nations.

Precept is a provider of high acuity software services to caregivers worldwide. Its suite of web-based critical care information systems software allows healthcare professionals to improve the quality of their high acuity care in a cost-effective manner.

Healthphone develops health industry solutions that use everyday Microsoft technology to empower people with relevant health information. Concordia, the sup-

screen. This information is pulled from several different sources and formatted automatically. Another application is the point-of-care web portal technologies, now installed in 50 % of the country's hospitals.

Healthphone has developed an electronic health record accessible over the internet while Precept is using telemedicine technology to allow physicians to manage critically ill patients remotely.

New Health IT companies successfully leverage leading edge research in Health Informatics, Medical Science, and Computer Science by sponsoring cutting edge research and development at the University of Auckland and other leading universities.

Applications Abroad

New Zealand-developed dental software accounted for 50 % of all dental software sales in the United Kingdom in the first two quarters of fiscal 2001. The country also boasts a leading electronic breast cancer screening program tracking systems.

Among many successful examples in diverse continents, one example of New Zealand exportable solutions is the pilot being run at the Hospital Universitário

Pilot For Online Appointments

Health Systems International, a provider of healthcare cost control solutions for the Maritime Industry, recently piloted an enhanced online appointment solution with Norwegian Cruise Lines to help streamline and expedite the care of crew members once the ship reaches the next Port City.

Once the ship medical officer determines a need for additional care to be delivered on shore, an appointment is entered via the Internet from the vessel. HSI is auto notified and appointment scheduling

into the Middle East and Europe. Its critical care information system (CCIS) provides a complete integrated solution for the point of care as well as unit management. The system comprises a medical device integration engine coupled to a clinical information repository that is HL7 enabled.

The good ideas developed in this small country have helped to highlight New Zealand as a land of innovation. Its technology may bring more than the solutions for the present challenges. It will also bring attention to the country's health system and how investment and faith in technology achieved positive results.

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begins. As appointments are scheduled, data is submitted to the vessel via the same Internet interface notifying them of the time, date and location of appointment. Immediate notifications of changes are submitted in real time after updates are made and HSI takes the appropriate action to ensure appointments are modified or rescheduled as requested.

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