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Publication date: February 2016
TAKING HEALTHCARE INTO THE FUTURE
Australia’s digital health industry has a long history of using innovative communications technology to improve healthcare delivery. Back in 1929, the invention of an affordable pedal-powered radio gave people in isolated areas access to advice and emergency medical services from the newly founded Royal Flying Doctor Service. Continuing to use the latest in medical and communications technology, the Royal Flying Doctor Service is now one of the largest and most comprehensive aeromedical organisations in the world.

Travel time is a significant issue in Australia. Vast distances, rugged terrain and a highly urbanised population means many rural and remote communities are a long way from centralised health resources such as specialist hospitals. These geographic challenges have helped drive advances in technology for delivering health services, making Australia a leader in areas such as health messaging and electronic health record architecture.

Today, the Australian Government and businesses are investing strongly in digital health, ensuring that Australia is at the forefront of best practice. Supported by a highly skilled and technology-driven workforce and backed by leading research institutions, Australian expertise across a range of health-related disciplines is in international demand.

This industry capability statement provides an overview of Australian capability in the digital health industry, including examples of some of the many Australian companies with specialist expertise.

Talk to your local Austrade representative for advice on connecting and partnering with this industry.
Australia has one of the world’s best and most efficient healthcare systems, delivering high life expectancy at a low cost. Australia’s universal health system is a global benchmark, with Medicare (government health coverage) working together with private health insurance to provide comprehensive healthcare for all Australians.¹

Digital health, which encompasses eHealth, hospital information systems (HIS), telemedicine, and health informatics, uses software, information and communication technology to deliver and manage health services. Australia is implementing digital health solutions to grow a sustainable healthcare system and respond to system-wide challenges including increased cost and demand pressures, greater demand for personalised care and an ageing population.

The Australian Government and private sector organisations are working collaboratively to develop a broad range of innovations across the entire healthcare system. Hospital spending on digital health initiatives also drives industry growth, and Australian companies are leading innovators in electronic information sharing, connecting general practice and specialised physicians, community, mental health and aged care providers. Australian digital health solutions make extensive use of broadband infrastructure, an area in which the Government is investing heavily via the National Broadband Network (NBN) plan.² Digital health enables consumers to take an active role in managing their own health, reduces the cost of care, provides practitioners with support tools and up-to-date patient data, reduces the risk of human error and facilitates the effective management of health service delivery. It improves system efficiency across the health sector, and reduces costs and activities related to treatment, as well as travel to and from communities for health services.

High speed broadband, provided through the rollout of the NBN, is underpinning growth in the use of information technology (IT) for healthcare applications, which in turn is creating a fertile ground for development of new technologies in telehealth, cloud-based applications and data sharing.

While much of Australia’s digital health development has been led by the private sector, the Australian Government’s National e-Health Strategy, developed in 2008, provided a road map for a co-ordinated and collaborative approach by state and federal governments.³ A number of initiatives and large-scale programs will continue to boost IT investment in the sector, delivering opportunities for enterprises to develop systems and solutions for both the domestic and international markets. Examples include a national personally controlled electronic health record (myHealth record⁴) and integration of services provided by government departments involved in healthcare delivery and funding.

Analysis in 2015 suggests that the Australian healthcare IT market is expected to grow at a compound annual rate of 12.3 per cent between 2013 and 2020, reaching an estimated market value of $2.21 billion by 2020. The 2015 healthcare IT market size is estimated at $1.20 billion⁵.
Within Australia’s nationally coordinated approach to digital health, there are multiple semi-independent sectors, including:

- integration of healthcare-related services delivered by multiple government departments
- the national myHealth record, implemented by the national eHealth Transition Authority (NEHTA)
- medical training and simulation
- mobile computing platforms for data analysis
- medical imaging
- clinical analysis of patient data
- patient flow, demand management and operational management
- treatment scheduling, prescribing, reporting and diagnosis
- management systems solutions
- telehealth, teledermatology, assistive technologies and mobile health for remote delivery of health services
- medical software.

Key information flows in digital health
LEVERAGING THE LATEST RESEARCH INTO GENOMICS AND PRECISION MEDICINE

Australian companies and research centres are embracing the potential of a new era of precision medicine made possible by advances such as the Human Genome Project.

Australia is active in the fields of genomics, epigenomics, metabolic genomics and molecular medicine, with comprehensive cancer care centres in Sydney and Melbourne running programs to bring research into clinical practice through informatics.

Australia has significant expertise and capabilities in bio-informatics and big data analysis.

MOBILE COMPUTING PLATFORMS FOR DATA ANALYSIS

Australian digital health capabilities also include applications that use mobile telecommunications in clinical settings. This approach is particularly valuable for rural and remote communities where access to fixed-line broadband may be limited.

Applications using mobile networks include:

- home-based cardiac rehabilitation programs that use mobile phones to upload physiological and lifestyle data. This is used in voice and video consultations with clinicians, encouraging self-monitoring and lifestyle changes
- wireless health monitoring systems for cardiac, respiratory and diabetes management, designed for use at home or in doctors’ offices.

The George Institute for Global Health, based in Sydney, is exploring novel ways of using mobile technology in healthcare delivery, such as the use of text messages to improve medication compliance in people with cardiovascular disease, and the ‘FoodSwitch’ app, which allows consumers to scan food labels and find the healthiest choices.

MEDICAL IMAGING AND ANALYSIS OF PATIENT DATA

‘Smart software’ automatically analyses reports and medical images for diagnosis and treatment. This has allowed development of research and software products for a number of clinical applications in Australia such as:

- early diagnosis of Alzheimer’s disease and a number of cancers
- automatic image enhancement and organ mapping technology. This helps surgeons plan radiotherapy treatment for prostate cancer patients, while saving time and imaging costs, and potentially reducing tissue damage and radiation exposure for patients
- quantitative imaging tools for extracting high-quality data from images, with applications that include:
  - imaging virus entry into cells
  - profiling stem cells
  - tracing neurites in brain cells affected by Alzheimer’s disease
  - retinal imaging and detecting breast cancer.
MEDICAL TRAINING AND SIMULATION

Australian businesses and research institutes have developed a number of technologies and devices for medical training and ongoing education. Examples include the surgical simulators developed by the Australian eHealth Research Centre (AEHRC) and the CSIRO, which provide cost-effective surgical training without risk to actual patients. An example is the high-fidelity colonoscopy simulator, which combines photorealistic 3D anatomic rendering and force feedback (haptics) to give a realistic sense of touch.

AEHRC has also developed a flexible surgical simulation software platform, MILXSim, which provides high-performance rendering and simulation capabilities. MILXSim forms the basis for the CSIRO’s colonoscopy simulator as well as the interactive 3D image analysis tool, Vulture. It was also used to prototype novel techniques for real-time non-linear tissue deformation and free-hand ultrasound simulation. The colonoscopy simulator is now a commercial product available through Swedish company Surgical Science.

The Australian Psychological Society (APS) has developed the ATAPS Clinical Support Service web portal with funding from the Department of Health and Ageing. Designed for allied health clinicians working in the ATAPS Suicide Prevention and ATAPS Child Mental Health Services, it provides access to online training, tools and resources, peer networking and webinars as well as clinical support.

SMART SOLUTIONS FOR HEALTHCARE SERVICES

Australia has developed a number of digital health applications to assist in the planning and delivery of healthcare services, including:

- patient flow applications, such as software that can predict how many patients will arrive at an emergency department, their medical needs and how many will be admitted or discharged
- statistical surveillance methods for detecting outbreaks of influenza and other diseases
- ePrescriptions that can reduce the risk of medical error, fraud, theft, over-medication and detect prescription drug abuse
- systems for sharing clinical information, such as shared health summaries, discharge summaries and event summaries.
As healthcare providers around the world embrace the potential of digital health to improve communication, streamline systems and deliver better care, international standards and specifications for electronic messaging are becoming essential to ensure smooth operation.

Australia is active in international IT standards development, often serving as a trusted independent party in brokering agreement between European and United States organisations. Australia is represented on the international boards of IHE, ISO, IT14 and HL7 bodies.

HL7 provides the standards for most healthcare system interactions. Australian consultant and principle of Health Intersections, Grahame Grieve, created a health data integration model known as Fast Healthcare Interoperability Resources (FHIR, pronounced “Fire”). FHIR is the next generation of HL7 standards frameworks, providing an interoperability solution to enable systems to interact with the cloud, mobile applications and EHRs.

Australian Health Messaging Laboratory (AHML), an independent not-for-profit organisation, is providing a leading-edge, easy-to-access message testing environment and certification service for software developers and implementers. The testing process checks HL7 messages against the International HL7 V2.3.1 standard and Australian AS4700.2, AS4700.6 and AS4700.7 HL7 standards, as well as a number of client specifications. The compliance and certification services offered by AHML provide independent assurance to healthcare organisations that their electronic messaging conforms to required standards and specifications.

AHML receives strategic direction from an advisory board comprising a broad range of organisations representing Commonwealth and State governments, standards organisations and the healthcare industry.
SUPPORTIVE COMMERCIAL AND REGULATORY ENVIRONMENT

Australia provides an ideal environment for the development and commercialisation of digital health applications. The health and medical industry is supported by an effective national regulator, the Therapeutic Goods Administration (TGA), which regulates medical devices and diagnostics according to a risk based framework. Where applicable, the TGA regulates medical device software used for therapeutic purposes under the medical devices regulatory framework.

An independent review of medicines and medical devices regulation in Australia was undertaken in 2014. The review highlighted areas that could be improved to enhance opportunities and operational efficiencies for local and international companies seeking approval and market entry in Australia. The key findings from the review included:

- areas of unnecessary regulation that could be removed or streamlined without compromising the safety or quality of therapeutic goods available in Australia; and
- opportunities to enhance the regulatory framework to position Australia well in responding effectively to global trends in the development, manufacture, marketing and regulation of therapeutic goods.

Access to capital is a critical component of an innovation ecosystem. The Research and Development (R&D) Tax Incentive is a cornerstone initiative that is driving considerable activity for local and international medical technology developers. The Incentive is a targeted, generous and easy to access entitlement program that helps businesses offset some of the costs of doing R&D in Australia. Introduced in 2011, the program aims to help more businesses innovate and invest in R&D activities. For SMEs the Incentive is fundamental to their ability to continue to invest and plan development, offering 45 per cent cash refund for companies with turnover of less than $20 million and operating at a loss or an offset for those in profit. For larger companies with a turnover over $20 million, the offset is 10 per cent.

More broadly, Australia is also committed to supporting business and investment through Free Trade Agreements (FTAs). FTAs eliminate tariffs, address behind-the-border barriers that impede the flow of goods and services between parties, and enhance cooperation.

The Australian Medical Research Future Fund (MRFF) was established in 2015. The Fund, the largest of its kind in the world, will support research across the medical spectrum, including the discovery and development of new medical devices. The Fund has received an initial contribution of $1 billion. As proposed, the MRFF will build to a $20 billion perpetual fund, providing annual disbursements of $1 billion by 2022-23.
The $1.1 billion Innovation Statement, released by the Federal Government in December 2015, highlights a major shift in accelerating Australia’s innovation investment and advancing a knowledge economy. Tax incentives for investors in startup technology companies, and a number of major funding opportunities in science and technology, will foster discovery, collaboration, commercialisation and skills.
RESEARCH AND DEVELOPMENT

Australia is well-known for cross-disciplinary problem solving, often bringing together computer scientists and mathematicians to assist clinicians and medical researchers develop solutions for clinical needs.

One example, the Australian e-Health Research Centre (AEHRC), is the largest e-Health research and development group in Australia, with 70 research scientists and engineers. The AEHRC is a joint venture between the CSIRO, state and national health jurisdictions and health service providers around Australia.

The AEHRC’s health informatics group has developed software tools for working with the international standard clinical terminology, SNOMED CT (Systematized Nomenclature Of Medicine Clinical Terms) that are used nationally and internationally for maintaining and using the terminology. Other work in the group includes health data analytics (such as the Patient Admission Prediction Tool) and natural language processing of clinical notes.

The AEHRC is also leading the way in the development of models of care for health service delivery. For example, the CSIRO’s Remote-I platform allows for diagnosis of eye diseases by sending images from remote clinics to specialists via mobile or satellite broadband links.

The AEHRC also published a world-first randomised controlled trial of a mobile phone based health intervention for cardiac rehabilitation.

The AEHRC’s biomedical informatics group rounds out a full health and biomedical informatics research program. The group develops algorithms and software for the analysis of biomedical information such as imaging and genomics. The imaging team has developed the MILXView suite of tools that are used with clinicians and commercial partners on specific projects, such as quantifying knee cartilage or brain markers. In addition, the Next Generation Sequencing Analysis for Enterprises (NGSane) genomics platform is implementing production quality analysis of genomic data for clinical and research projects.

HIGH-TECHNOLOGY SOLUTIONS IN DIVERSE ENVIRONMENTS

Although Australia’s population is highly urbanised, its health system serves many remote and rural centres and indigenous communities across a vast geographic area. As well as developing innovative, leading-edge applications, Australian digital health providers have had to develop affordable solutions for healthcare delivery in multiple languages, to remote locations, across rough terrain and in extremes of climate.

An example of this capability is Communicare eHealth Solutions, a company that has specialised in electronic health care record and practice management software specifically tailored for the needs of medical clinics, hospitals and remote nursing posts in rural and remote indigenous communities.

Australia is a culturally and linguistically diverse country, with 28 per cent of the resident population born overseas. This diversity means that clinicians’ decision support systems and software must take into account a wide range of ethnically specific diseases as well as tropical diseases and conditions common in neighbouring regions. Australian digital health systems have evolved to meet this need.
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Digital Health Solutions and Applications in Australia
FLEXIBLE AND INNOVATIVE SOLUTION PROVIDERS

Australia’s integrated public health system creates a fertile environment for digital health providers to design, develop and integrate niche technologies and solutions, supported by leading-edge research and development and world-class healthcare delivery.

The National E-Health Strategy incorporates several initiatives, such as the personally controlled electronic health record (myHealth record), streamlined processes for electronic prescribing and dispensing, telehealth programs for people in remote areas and a national Healthcare Identifiers (HI) service for healthcare providers, individuals and organisations.

A number of national government programs are in place to tackle the complex and fragmented aspects of health service delivery, by consolidating and coordinating patient, practice and clinical management systems operated by state and territory governments and supporting information flow nationally.

In some areas, digital health providers still need to ensure their systems are compatible with individual state and territory systems, each operating under different legislation, compliance regimes, rules and requirements. As a result, the Australian digital health software industry has developed the capability to produce solutions that serve the needs of patients, medical practitioners and government, while being flexible enough to work in a wide range of settings.
The way healthcare is delivered is changing. Telstra Health is leading that change

Telstra Health delivers innovative digital health solutions that make healthcare easier, more accessible, at lower cost and with improved clinical outcomes.

Telstra Health has solutions for hospitals, doctors, pharmacy, aged and community care, radiology and pathology, health analytics and telemedicine. Working with industry, government, insurers and with some of the world’s brightest eHealth companies, the vision is to build a brilliantly connected future where eHealth solutions are fully integrated across the continuum of care.

Telstra Health’s international business is driven by our hospital information system, health information exchange, integration platform and analytics capabilities used by customers across Asia, the Middle East, Europe and North America.

One example is the deployment of their Arcus Hospital Information System in the 200-bed, remote community Paknampo Hospital, 250 kms north of Bangkok, Thailand. Dr Athiwat Noiprasit, Hospital Director, says that the Arcus HIS allows staff to place patients at the centre of the integrated care model.

Says Dr Noiprasit: “We’ve achieved improvements to patient safety in many different areas including more accurate patient ID, greater accuracy in medication and test ordering and reduced duplication of X-rays and other imaging. Added to which, our clinicians’ time is better optimised and the patient experience is improved with shorter waiting times.

“At the same time, we’re now able to monitor patient numbers, workflows and delivery processes and have the financial reporting and the data we need in real time on which to base administration and business decisions.”

Telstra Health also helps healthcare organisations achieve sustainable improvements in their performance through better use of data from its Dr Foster health analytics solution. It uses risk adjusted methodologies to compare the outcomes of individual hospital patients, allowing adjustment for individual factors such as medical history, age or other background factors.

telstra.com.au/telstra-health
Emerging Systems helps hospitals set new standards in care

Delivering safe, effective and high quality patient care depends on access to accurate and comprehensive information. Sydney-based IT company Emerging Systems has now installed its multi-function clinical information system to support clinical service delivery in a number of major Australian hospitals and healthcare facilities.

One example is St Vincent’s Private Hospital, Sydney (SVPH). The hospital is a leader in the early adoption of clinical information systems and is the only private hospital in Australia to achieve international Magnet Status in recognition of its quality patient care and nursing excellence.

The EHS Clinical Information System in use at SVPH tracks, guides and records care delivery from pre-admission to discharge. The system provides deep clinical functionality including role-based authentication, clinical orders, results, alerts, action lists, contact and paging lists, rostering, staff allocation, clinical messaging, care guides & clinical pathways, risk assessment, medical history, clinical forms, progress notes, discharge summaries and management reporting tools to optimise patient flow and continuously improve safe, quality care delivery.

Recent enhancements to EHS include mobile iPad and iPhone technology to meet the increasing clinical requirement for secure access to patient information from anywhere, allowing clinicians to make informed, timely clinical decisions.

emerging.com.au
EpiSoft links clinician communities

Healthcare professionals throughout Australasia are exchanging information more effectively by using EpiSoft, a secure Internet-based electronic health record and clinical research software platform developed by an Australian company. EpiSoft allows communities with shared areas of clinical interest to develop best-practice guidelines, share care plans and benchmark their outcomes against their peers in similar clinical settings, using de-identified benchmarking data.

Some recent applications include:

- Cancer CareZone, an electronic medical record for the management of cancer patients. The software features over 400 chemotherapy protocols with automated treatment scheduling, drug ordering and management.
- the ASSURANCE Program for the management of patients with inflammatory bowel disease who are at increased risk of colorectal cancer
- CareZone GI (gastrointestinal), a software program for hepatitis shared care that bridges the gap between hospital outpatient departments and GPs, enabling a shared care model to reduce the risk of patients with chronic viral hepatitis slipping through the cracks between specialist and GP care
- CareZone Mental Health, a clinical management system designed to improve the co-ordination of mental health care that features a range of mental health specific clinical assessment forms, an appointment system that manages group sessions and a wait list that can be shared across facilities and sites to identify the first available clinician.

episoft.com.au
Extensia’s shared care record, RecordPoint, enables providers and consumers to access the health information they need, when they need it, and where they need it. RecordPoint is a patient centred, scalable, customisable system built on an architecture of “privacy by design.”

RecordPoint has been implemented in Commonwealth and State projects for indigenous communities, aged care settings and chronic disease collaboratives, and it has been used in 60 sites across Australia, showing how shared care records work and their benefits.

RecordPoint fills the gaps in the national My Health Record and uploads health events into the national record, where consent is provided. It has been used in several states across Australia, by the most populous GP Division in Australia, as well as throughout the largest primary healthcare region geographically - the Goldfields Midwest area, Western Australia.

In the Goldfields Midwest, RecordPoint is called GoldHealth. It co-ordinates care for patients with chronic and complex medical conditions and it means that patients can share their health information with the various providers they use securely and privately. Current medications, allergies and diagnosis history are all immediately available. Patients using GoldHealth don’t have to repeat their story and duplication of tests is reduced. GoldHealth interfaces with GP and other clinical and community systems to facilitate sharing of relevant patient information, and provides a shared patient document repository and reporting database.

GoldHealth is funded by a number of stakeholders, including the Department of Health and Ageing. It currently links patients, indigenous health service providers, hospitals, public community services, public and private nursing homes, public and private healthcare providers, pharmacies and allied health organisations over an area of 1.3 million square kilometres. This saves time and travel and improves outcomes and efficiencies.

extensia.com.au
Another Extensia project – software on this truck enables experts from around Australia to provide care to remote communities. Image courtesy of Extensia
**Ocean Informatics brings eHealth to the outback**

‘The successful My eHealth Record project, using OceanEHR, has enabled NT to consolidate health information from multiple data types and health repositories into a single, standard and consistent health record for a person.’  
Stephen Moo, CIO NT Health and Executive Sponsor for My eHealth Record project

As the personal health record (PHR) initiative rolls out nationally, nowhere are the challenges of distance greater than in the Northern Territory, Australia’s most sparsely populated state.

The state health department, NT Health, has been implementing a comprehensive shared electronic health record (EHR) to support healthcare delivery, especially to the remote Indigenous population.

Australian health IT company Ocean Informatics worked with the NT government throughout 2011 to enable the Shared EHR platform to store structured data in line with the NeHTA Detailed Clinical Models (DCMs) specification standards. The new Shared EHR enables NT Health to implement Decision Support and Advanced Care Planning for the population of the Territory.

Over 50,000 patient health records are now in a standardised format, with over 4 million health record documents converted and stored on the Ocean EHR platform. The shared EHR system links acute hospital systems, GP systems and community care, paving the way for improved healthcare for all NT residents, including the mobile Indigenous population and remote area dwellers.

With office locations in Australia and the United Kingdom, Ocean Informatics has a long record of successful work in health IT standards internationally. This includes ISO, HL7, and CEN and the company has been instrumental in establishing the openEHR industry standards. Ocean Informatics was recently selected by IBS Russia to be part of the consortium building the Moscow Integrated Medical Information System (SIMI) pilot.

oceaninformatics.com
TrendCare helps hospitals make the most of their resources

As healthcare budgets come under increasing pressure, many hospitals are using workforce planning and workload management systems from Australian company Trend Care Systems Pty Ltd to achieve new levels of efficiency.

Trend Care's patient acuity, workload management and workforce planning software is now in use at over 134 sites (13,663 beds) in Australia, 38 sites (7,314 beds) in New Zealand, 18 sites (12,422 beds) in South-East Asia and one site in the United Kingdom (730 beds). Its workforce planning and workload management system provides dynamic data that allows healthcare facilities to convert existing paper clinical pathways, care plans and risk assessments into dynamic electronic clinical tools with extensive outcome variance reporting.

The system covers:
- Patient acuity and workload management
- Workforce planning
- Dynamic productivity & efficiency reporting
- Rostering & leave planning
- Clinical pathways & outcomes reporting
- Care plans & outcomes reporting
- Patient risk assessments & reporting
- Care capacity management
- Dynamic care capacity displays
- Multi-disciplinary clinical handovers
- Allied health intervention registers
- Diet ordering & reporting
- HRM tracking and reporting
- Training & competency registers
- Staff health registers.

With a focus on regular product updates and user support, Trend Care has won multiple industry awards.

www.trendcare.com.au
support@trendcare.com.au
Pro Medicus builds up the big picture

With over 30 years of industry experience, Pro Medicus has grown into a leading global provider of radiology information systems (RIS), Picture Archiving Communication Systems and 3D software.

In January 2009 the company acquired Visage Imaging and now has United States offices in California, European offices in Berlin and head offices in Melbourne, Australia.

Visage Imaging is a pioneer of a new paradigm called best-of-breed, or Deconstructed PACS®. Visage 7 technology delivers amazingly fast multi-dimensional images, streamed via an intelligent, thin-client viewer. Radiologists and referring physicians have a customised, protocol driven, work-flow to natively view multi-dimensional imagery across a single desktop.

Visage has won a number of significant contracts in the US in 2014/2015. Customers include large health systems, outpatient imaging centres, teleradiology groups and university health systems such as the University of Florida.

“After 18 - 24 months of careful analysis by a team of technologists, physicists, radiologists and clinical providers we are happy to be working with Visage to provide the visualization component of our new enterprise imaging solution,” said Anthony A. Mancuso, M.D., professor and chairman, University of Florida College of Medicine, Department of Radiology. “We are extremely pleased with Visage’s server-side rendering architecture, which allows for the transfer and manipulation of images by all those with a need to access images, to rapidly and completely arrive at proper medical decisions.”

In 2015 Visage further extended its product range with FDA clearance for Visage Ease Pro mobile technology, for diagnostic interpretation of all imaging modalities apart from mammography.

promedicus.com.au
PowerHealth delivers a new era for healthcare billing in Hong Kong

Australian IT company PowerHealth Solutions is behind the Hong Kong Hospital Authority’s new enterprise-wide system which handles billing and revenue collection for all healthcare services delivered. The sophisticated system was specifically designed to overcome the complexities of international healthcare billing, using business rules and a workflow engine to customise and automate complicated billing logic.

The Hong Kong Hospital Authority manages healthcare services for its population of 7 million through 41 public hospitals and 123 outpatient clinics, at the rate of over a million patient discharges per year.

The PowerBilling and Revenue Collection system consolidates charges for treatment episodes in all hospitals for each individual patient within the billing period into a single bill. This can be settled at hospital cashiers (shroffs), in shopping centres, and 7-Eleven convenience stores, as well as through internet banking services. The system also issues monthly summary statements to provide patients with a concise overview of all unsettled bills for services used in any public hospitals.

The Hospital Authority successfully rolled out the system in three phases, ensuring a smooth transition across its seven hospital clusters over 12 months from January 2013 to January 2014. Since then the system has been busy generating 5,600 invoices and accepting 5,900 receipts per day. Established in Australia and with clients in the United States, United Kingdom, Ireland, New Zealand, and Hong Kong, PowerHealth Solutions is an international software vendor specialising in healthcare enterprise billing, activity based costing and patient safety.

powerhealthsolutions.com
A dose of efficiency, thanks to Webstercare

Software from Australian company Webstercare is helping doctors, pharmacists, aged care facilities and carers improve their medication management.

Reflecting the move towards electronic medication administration records eMARs, Webstercare’s MedSig® software is a paperless solution for aged care facilities which is accessed via a dedicated touchscreen computer.

MedSig software includes medication details, dosage times, resident photos and more. Not only does the MedSig program significantly speed up medication delivery, it communicates directly with pharmacies via a secure data centre, updating medication details simply, quickly and securely.

In pharmacies, Webstercare’s MedsPro® system offers a highly efficient alternative to traditional manual packing. By creating a ‘mini dispensary’ placing the most common medications directly in front of the packing technician, MedsPro system improves packing accuracy and productivity, reduces pharmacy storage requirements, increases speed and streamlines script management processes. This system is currently being used successfully in the US as well as in Australia.

In addition, the eWebstercare MedsComm® Connect software facilitates paperless communication between doctors, pharmacies and residential aged care facilities. It allows doctors to refer directly to a patient’s profile while writing scripts and recording any changes.

MedsComm Connect provides a consistent platform for doctor, pharmacy and aged care facility to work from the same information source and allows each party to access a patient’s current medication data via a secure internet connection. All information is replicated and securely stored in the Webstercare software at the pharmacy.

webstercare.com.au
Blamey Saunders hears is a global leader in tele-audiology and the online supply and support of hearing aids to customers Australia-wide. The IHearYou® system, that won the 2015 Australian Good Design Award for Social Innovation, gives customers the ability to adjust their hearing aids anywhere, anytime from a PC or smartphone. This can be done with personal assistance from Blamey Saunders’ expert Melbourne-based team, if required.

IHearYou® reduces the barriers of cost, stigma, inconvenience and distance from service providers. These barriers discourage people from buying and wearing quality hearing aids sourced through conventional audiology clinics. The improved hearing outcomes and industry-leading levels of customer satisfaction are built on patented sound processing technologies. The system utilises scientifically validated hearing aid fitting methods that do not require investment in costly equipment and professional training. It is simple enough to be used in the customer’s own home and easily translates to international markets.

In contrast to the hearing aid industry’s clinic-focused model, IHearYou® allows for a direct-to-consumer model that saves users from audiologist fine-tuning costs and provides premium hearing aids at a fraction of the cost of comparable devices. If adopted as industry standard, this model could reduce the cost of hearing health care by approximately 70 per cent (UK data).

In developed countries only 25 per cent of people who would benefit from hearing aids use them daily. It is Blamey Saunders goal to address the unmet needs of the remaining 75 per cent and reduce the social and health burden of hearing loss, without increasing the costs to clients or governments.
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This table provides some examples of organisations and their capabilities, and is not an exhaustive list. Contact your local Austrade representative for assistance connecting with the Australian businesses that best suit your requirements. 

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<th>Company name</th>
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The following organisations are some of the government and industry bodies involved in the digital health industry in Australia.

Contact your local Austrade representative about connecting and partnering with the Australian digital health industry or to request copies of the Medical Devices, Clinical Trials, or Seniors Living and Health Industry Capability Reports. austrade.gov.au

**INDUSTRY ASSOCIATIONS**

Australian Information Industry Association (AIIA), industry body seeking to maximise the potential of ICT for the healthcare industry ailia.com.au

Health Informatics Society of Australia (HISA) is the peak body for e-health and health informatics in Australia hisa.org.au

Medical Software Industry Association (MSIA) represents the interests of the Australian software industry, developing services for healthcare practitioners, service providers and organisations msia.com.au

**CENTRES OF RESEARCH**

Australian eHealth Research Centre is a national research facility developing systems for patients, clinicians and health agencies aehrc.com

The CSIRO is Australia’s national science agency and one of the largest and most diverse research agencies in the world. csiro.au

NICTA (National ICT Australia) is a global leader in ICT research, developing applications based on research in several areas relating to health and life sciences. nicta.com.au

Australian universities are also at the forefront of developments in areas of digital health.
REFERENCES
The Australian Trade Commission – Austrade – contributes to Australia’s economic prosperity by helping Australian businesses, education institutions, tourism operators, governments and citizens as they:

- develop international markets
- win productive foreign direct investment
- promote international education
- strengthen Australia’s tourism industry
- seek consular and passport services.

Austrade helps companies around the world to identify and take up investment opportunities in Australia as well as to source Australian goods and services.

Our assistance includes:

- providing insight on Australian capabilities
- identifying potential investment projects and strategic alliance partners
- helping you to identify and contact Australian suppliers.

W  www.austrade.gov.au
E  info@austrade.gov.au